Public Utilities

Volume 62 No. 7 September 25, 1958

TAXATION AS AN INCENTIVE TO GOVERNMENT ELECTRIC POWER
By Bennett L. Smith

« »

"Public Utilities" Now Taught by Few Colleges
By John D. Garwood

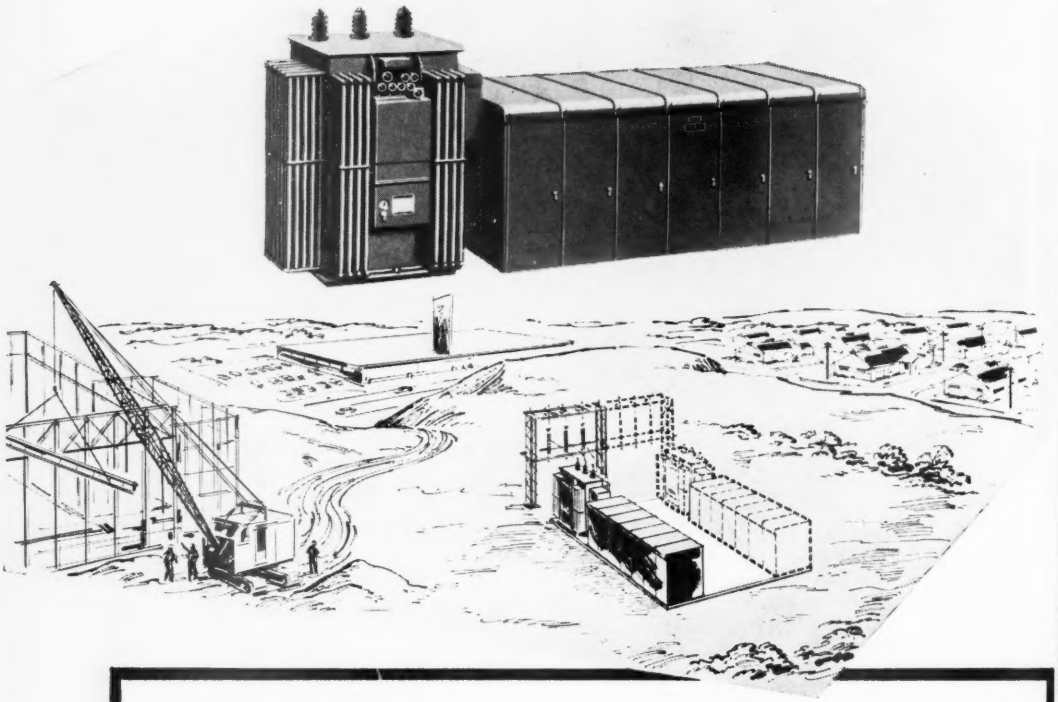
« »

Does It Pay to Capitalize Taxes During Construction?
By Willard F. Stanley

« »

Using Engineers Effectively in Public Work

Packaged unit substations mean packaged expansion



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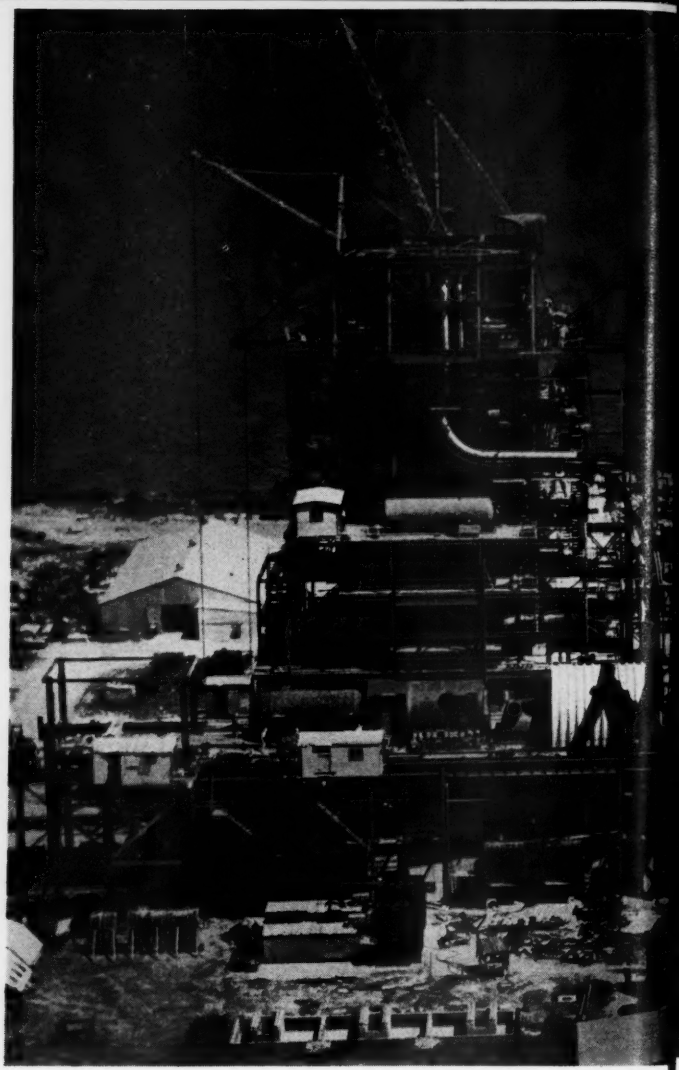

New W. A. Parish St

Goes in

The first generating unit of the new W. A. Parish Steam Electric Station of the Houston Lighting & Power Company has recently been placed in service.

Located at Smithers Lake, some 9 miles south of Sugarland, Texas, and about 13 miles from Houston city limits, this new plant—one of the largest in the area—was named in honor of Mr. W. A. Parish, President of the Company from 1953 to 1958, and now Chairman of the Board of Directors.

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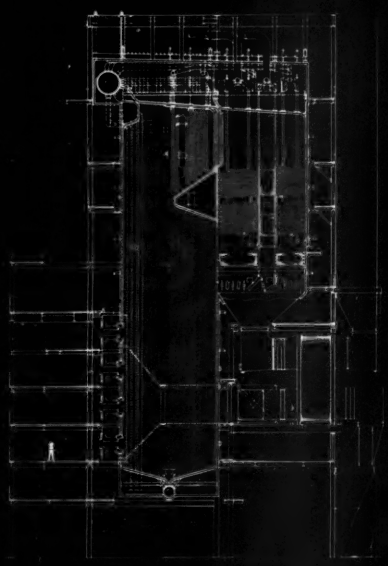
ALL TYPES OF STEAM GENERATING, FUEL BURNING AND RELATED EQUIPMEN



The C-E Unit shown above is now in service at the W. A. Parish Steam Electric Station. A duplicate is under construction. These are radiant, reheat boilers with the reheat section located in a divided rear pass which also contains primary superheater surface. Economizer surface is located between the reheater and superheater banks, and also beneath both sections at the bottom of the pass. Proportioning dampers control the gas flow over these surfaces. Regenerative air heaters are located below the rear pass. Steam is produced at 1900 psig throttle pressure and 1005F reheated to 1005F. The units are designed for pressure firing of oil and natural gas using C-E Combination Burners, Type R.

steam electric station

...s into service

The first generating unit—now in service—is rated at 150,250 kw, and the plant will eventually have more than 1-million kw installed capacity. A duplicate unit is presently under construction. Ebasco Services, Inc. are the consulting engineers.

Both of the W. A. Parish station's turbine generators are served by C-E Steam Generating Units, a cross-sectional elevation and brief description of which appear above, right.

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Pages with the Editors

ONE of the frequent arguments used in support of expanding federal government operation in the electric power field is that it actually promotes private enterprise in a given area through the attraction of cheap power for industry. This is small consolation, of course, for investors in business-managed electric utility companies, who may be injured or even ousted from the area in the unequal struggle for business between tax-paying and tax-exempt rivals. But, leaving aside the special case or grievance of the business-managed electric utility companies, the establishment and stimulation of new tax-paying business enterprise in other lines of industry would seem to be reasonable economic justification for such government activities, without regard to legal or constitutional objections.

YET, when it appears that such new enterprise is *not* native to the area served, but rather attracted from some other place, we have new complications. What does it profit the economy, as a whole, if one area is thus benefiting at the expense of another, and where the tax-paying burdens of all are increased by the amount of the tax subsidy?

THESE are, of course, leading questions based on assumptions which many find

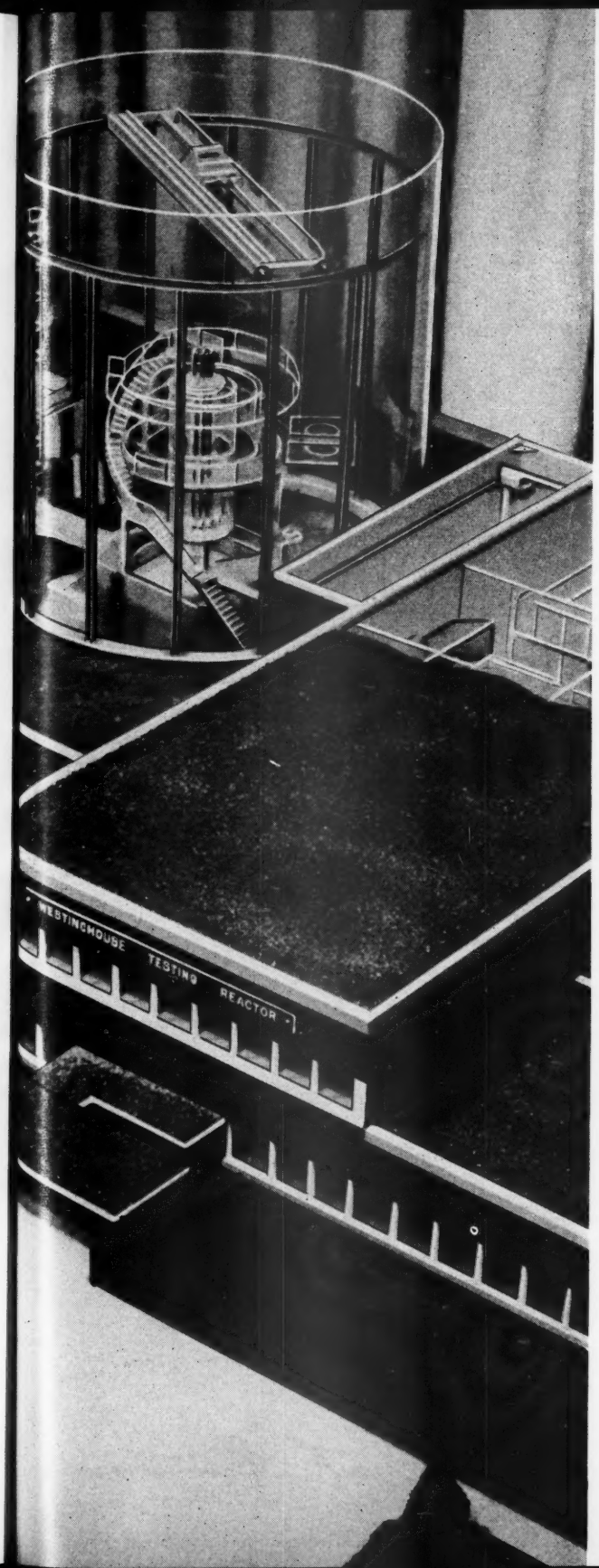
BENNETT L. SMITH

JOHN D. GARWOOD

quite debatable. But a good case can be made for the thesis that higher taxes paid by public utility companies have an unequalizing impact, in the rivalry between public *versus* private power agencies. Obviously, higher taxes paid by the electric utility companies must be reflected in higher rates. These, in turn, encourage the promotion of ostensibly cheaper tax-free government power service. Yet, since the government is wholly dependent on taxes, is it not to its advantage to encourage tax-paying industry to the fullest and widest extent possible?

THE leading article in this issue, by BENNETT L. SMITH, attorney of Fort Worth, Texas, discusses in a factual way federal government power operations in the Tennessee valley and in the Bonneville Power Administration's service area. He also discusses the New York State Power Authority operations and reaches some trenchant conclusions on the proposition that low electric utility rates based solely on tax avoidance are in the interest of either the taxpayers or their government.

MR. SMITH is a native Texan who was educated at the University of Texas (AB, '22; LLB, '26). He has served with the



New testing reactor speeds atomic power to industry

ANOTHER EXAMPLE OF EARNINGS PLOWED BACK

This center for testing atomic fuels and core materials will speed benefits of nuclear-generated electric power to utilities and industry.

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The Westinghouse Testing Reactor, to be completed early in 1959, will provide the equipment and conditions for testing, under actual conditions of radiation, temperature and pressure, materials and fuels needed for generation of atomic electric power.

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WILLARD F. STANLEY

Community Public Service Company for more than thirty years, and he is now principal attorney and secretary of that organization. He is part-time instructor in economics at Texas Christian University.

* * * *

WHAT is the reason college and university courses in public utility economics and law have fallen into a decline in recent years? When we stop to think of the many distinguished lawyers, jurists, administrators, and regulators in government service today, who have used a specialized knowledge of public utility law or economics as a steppingstone in their careers, the waning attraction of this once popular feature of school curricula is difficult to understand. Supreme Court Justice Frankfurter comes to mind most readily as one whose early reputation was based as much on his proficiency and concentration on public utility regulation as on constitutional law—during Frankfurter's years as a Harvard Law School professor.

TODAY, less than 5 per cent of our colleges and universities are teaching specialized economics courses in Public Utilities. The most frequent substitute is a general course in "Business and Government." And how do these treat public utility industries as such? The article beginning on page 446 of this issue by DR. JOHN D. GARWOOD, professor of economics at Fort Hays Kansas State College, analyzes the courses and textbooks being used and in general the present state of college instruction in Public Utilities. Among other conclusions reached is that there are relatively few educators qualified to teach the subject. But there can be little doubt about DR. GARWOOD's conclusion that the caliber and treatment given this subject in the textbooks used will shape the economic thinking of our professional people of tomorrow.

DR. GARWOOD is a graduate of the Universities of Wisconsin, Louisiana, Southern California, and Colorado. He took his PhD in the last-named institution. He specialized in public utility economics and taxation. During the last few years he has contributed to a number of economic and business publications, including *American Mercury, National Tax Journal, American Bar Association Journal, Journal of Land Economics, Management Review,* and this magazine.

* * * *

WILLARD F. STANLEY, whose article "Does It Pay to Capitalize Taxes during Construction?" begins on page 454, is the author of a number of articles on utility finance. He is also president of Corporate Services, Inc., of New York. His article in this issue discusses advantages accruing to a utility by capitalization of taxes during construction. These advantages are especially substantial where local tax laws permit or encourage companies to engage in this practice. He points out that tax capitalization is at least permissible under the Uniform System of Accounts of both the Federal Power Commission and the National Association of Railroad and Utilities Commissioners. The result of this practice, he claims, creates average increased values for common stockholders and improves a company's position with respect to common stock financing.

THE next number of this magazine will be out October 9th.

The Editors

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Coming IN THE NEXT ISSUE

(October 9, 1958, issue)

★

INDEPENDENT TELEPHONY AND ITS EXPANDING HORIZONS

Hugh A. Barnhart, president of the Rochester Telephone Company of Rochester, Indiana, and first vice president of the United States Independent Telephone Association, has written a persuasive account of the background and objectives surrounding the theme of the sixty-first annual convention of that association. It deals with the future of the independent telephone industry, and its prospects are bright, indeed. Mr. Barnhart reminds us that the postwar expansion program of the independents was necessarily accompanied by some sharp growing pains. And these pains will continue here and there, to some extent aggravated, as they are likely to be, by dynamic population and area growth plus the lash of inflation. Before the end of the present century the independents expect to be serving about 11 million telephone subscribers. And by the time the century is three-quarters completed, the number of independent customers may well be counted in the order of 25 million.

THE FORWARD LOOK IN COMMUNICATIONS

R. Karl Honaman is the director of publication of the Bell Telephone Laboratories. He was formerly assistant professor of electrical engineering at George Washington University. It has been his task to take the broad view of technical research and developments in the telephone field as they bear on the overall usefulness of the telephone industry to the public. More than that, it is Mr. Honaman's job to consider the extent to which the public requires new and different uses for telephone service. And there is also the important field of pure research and collateral developments of Bell Laboratories' discoveries and improvements which may be projected outside of the telephone industry and for which in some cases immediately useful application is an unknown quantity.

FINDING NEW TELEPHONE CUSTOMER CONTACTS

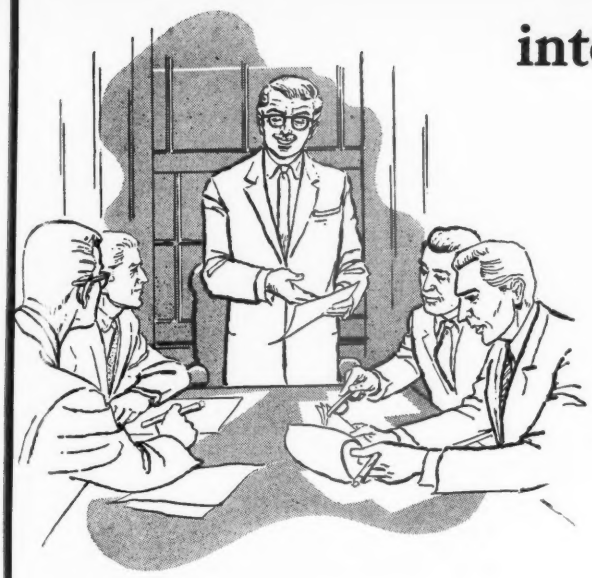
With the rapid increase in mechanization of telephone operations something has happened to the former close and cordial relationship which generally existed between the telephone company and its subscribers. The "voice with a smile" has been succeeded by an electronic buzzing signal which indicates that the dialing apparatus is ready to do business. What can be done to restore the important warm and human contact between the company and the customer which has all but vanished in the wake of automatic switching? James H. Collins, business article writer of Washington, D. C., has checked around the telephone industry to find out what steps have been taken along this line. And the results make entertaining and reassuring reading for people in the telephone industry as well as everybody else who uses the telephone.

CURRENT AND FUTURE PROGRAMS OF THE TELEPHONE INDUSTRY

For the special telephone issue of October 9, 1958, the editorial staff of PUBLIC UTILITIES FORTNIGHTLY has developed a very important feature which embraces an illuminating cross section of what the telephone industry in the United States is thinking about and what it is doing and planning at the executive level during this critical period of postwar expansion. This feature includes statements by presidents or other executive officials of numerous telephone companies, in both the Bell system and in the independent field, in various parts of the country, providing information about their plans along the following lines: (1) colored telephones; (2) telephone extensions; (3) multiple subscriptions; (4) paging services; (5) mobile radiotelephones; (6) leased lines; (7) conference or other business services; (8) new subscriber campaigns; and (9) construction programs in the light of present economic conditions.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***



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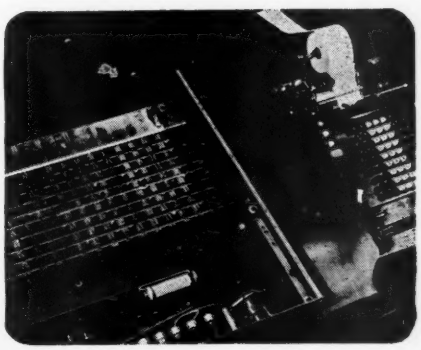

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BERNARD BARUCH
Financier.

"The only real protection the small saver or any group can have is through the preservation of the credit and security of this country. No form of regulation that may be proposed can take the place of sound government policy."

LYNDON JOHNSON
U. S. Senator from Texas.

"It is not true that the abilities of Soviet science far exceed those of our American scientists. As free men, who respect the freedom of man's mind, we must not allow political policies to chain our most priceless resource."

ALFRED P. SLOAN, JR.
Honorary chairman of the board, General Motors Corporation.

"Management can no longer limit its horizon of responsibility to mere production and distribution of goods and services, no matter how effectively those things may be done. It must broaden its scope of leadership, and assume the rôle of economic statesmanship."

JAMES M. SYMES
President, Pennsylvania Railroad Company.

"I am opposed and do not believe in subsidy for anyone. Why should the farmer in Oklahoma or Texas pay directly or indirectly any part of the cost of people flying 20,000 feet up in the air, or the cost of operating a barge on the Mississippi river, or the cost of leasing the railroads' equipment?"

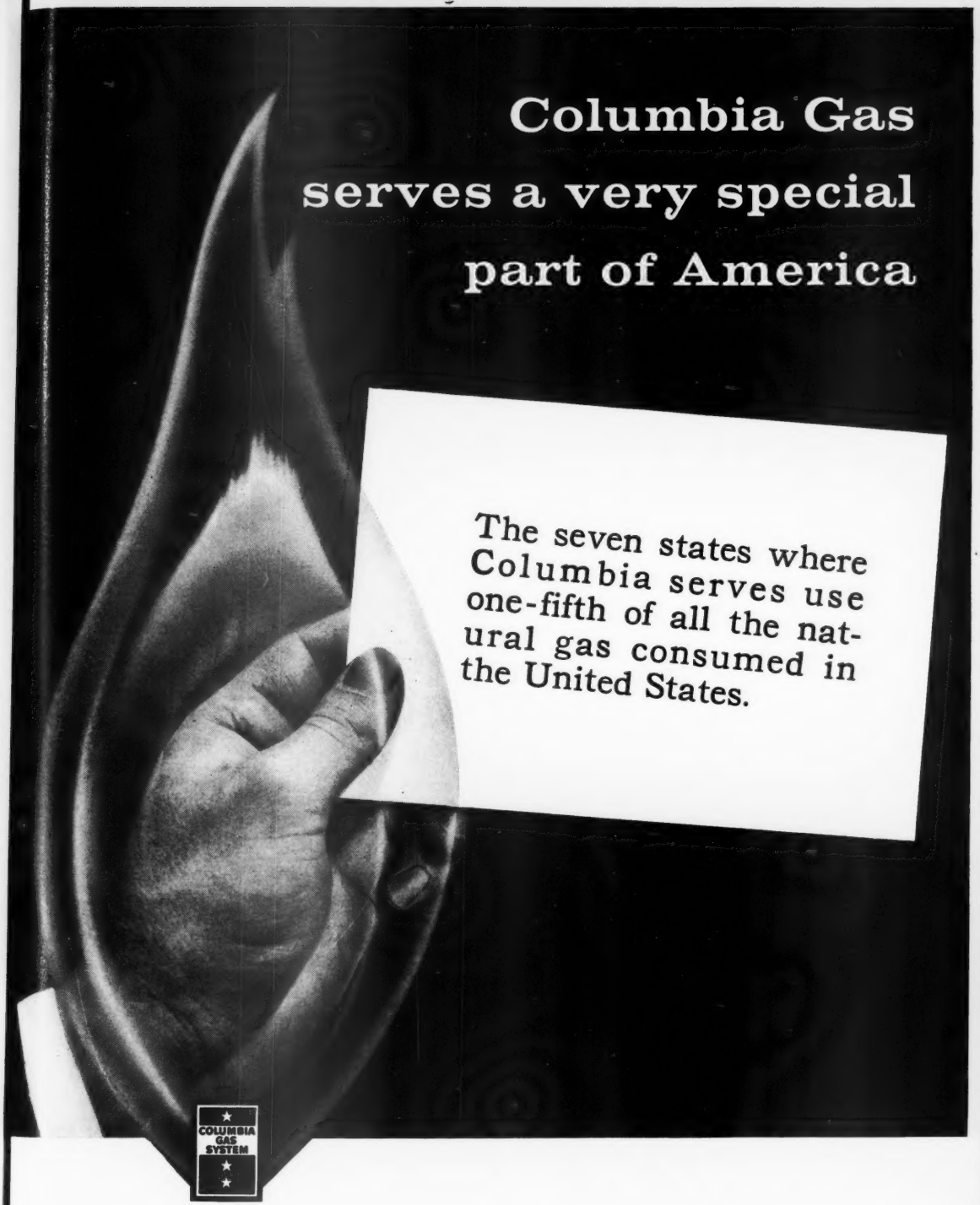
ROGER M. BLOUGH
Chairman of the board, United States Steel Corporation.

". . . the right to be wrong, to make your own decisions, to solve your own problems, to back your own opinions, is the keystone to growth—to growth in every material way. And it is equally the surest way to spiritual growth. It is as natural as the effect of sunlight in the growth of plant life."

WILLIAM H. GRIMES
Editor, The Wall Street Journal.

"To distinguish between what the people want and what a clamorous few claim they want is difficult enough. A panicky state of mind such as is being exhibited in a good many places in Washington is hardly the mood which will be conducive to a wise decision. Nor is a government bound to give way to a changing public sentiment even when the change is bona fide. One may hope at least that there is left in the world such a thing as statesmanship which can stand against what it deems unwise policies and try to lead public sentiment rather than follow it."

Columbia Gas serves a very special part of America



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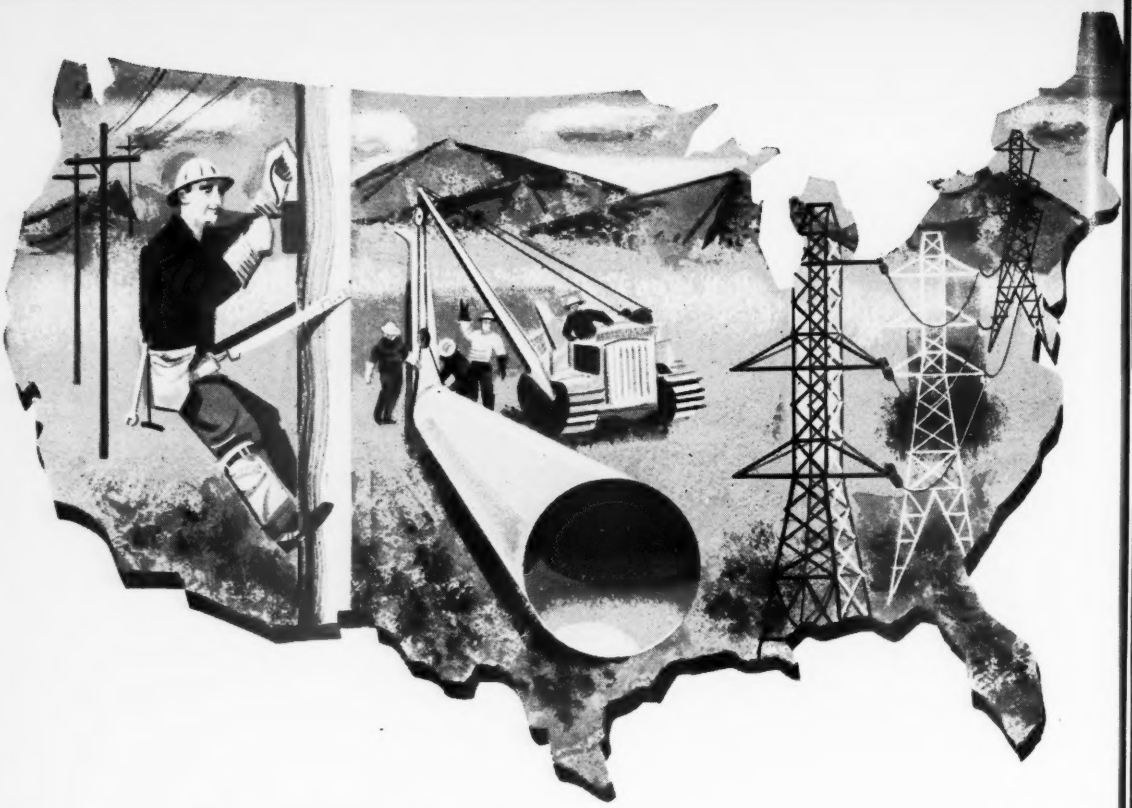

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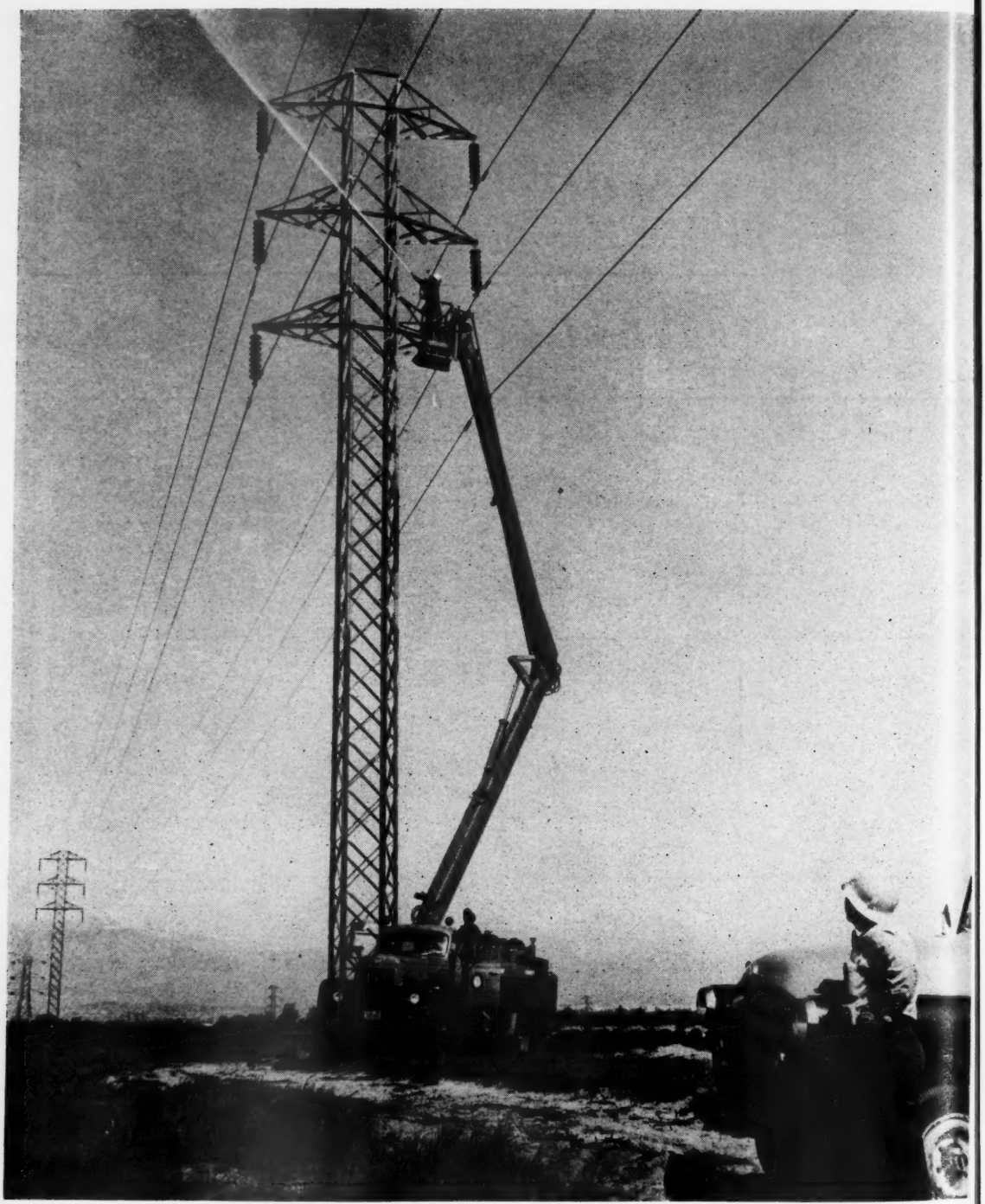
SEPTEMBER-OCTOBER

Thursday—25 *West Virginia Telephone Association ends two-day annual convention, Davis, W. Va.*	**Friday—26** *Mississippi Broadcasters Association begins management conference, University, Miss.*	**Saturday—27** *International Gas Conference ends, Rome, Italy.*	**Sunday—28** *American Society of Mechanical Engineers, Power Division, begins conference, Boston, Mass.*
Monday—29 *National Watershed Congress begins, Dallas, Tex.*	**Tuesday—30** *American Water Works Association, Missouri Section, ends three-day meeting, Jefferson City, Mo.*	**OCTOBER** **Wednesday—1** *Indiana Electric Association begins annual convention, French Lick, Ind.*	**Thursday—2** *American Bar Association begins regional meeting, Portland, Me.*
Friday—3 *Electric Companies Public Information Program ends three-day workshop conference, Minneapolis, Minn.*	**Saturday—4** *American Transit Association will hold annual meeting, New Orleans, La. Oct. 12-15.* ***Advance notice.***	**Sunday—5** *Texas Association of Broadcasters begins fall conference, Fort Worth, Tex.*	**Monday—6** *North Carolina Telephone Association begins annual convention, Pinehurst, N. C.*
Tuesday—7 *American Gas Association will hold annual convention, Atlantic City, N. J. Oct. 13-15.* ***Advance notice.***	**Wednesday—8** *United States Independent Telephone Association will hold national convention, Chicago, Ill. Oct. 13-15.* ***Advance notice.***	**Thursday—9** *California Natural Gasoline Association begins fall meeting, Pasadena, Cal.*	**Friday—10** *American Institute of Mining, Metallurgical, and Petroleum Engineers ends two-day conference, Old Point Comfort, Va.*



Courtesy, International Harvester Company

Smog-fighting "Giraffe"

California Electric Power Company fights ever-increasing seasonal concentrations of air pollutants on insulators of transmission and distribution lines and substations with this 52½-foot high "giraffe" equipped with hydraulic nozzle.

Public Utilities
FORTNIGHTLY

VOLUME 62 SEPTEMBER 25, 1958 NUMBER 7

Taxation As an Incentive to Government Electric Power

By BENNETT L. SMITH*

SOME danger is seen in a trend towards regional competition for new industry. Tax-free and tax-subsidized power havens have an obvious tax advantage. Other areas may well seek equal tax treatment and rate advantages. This could slowly crowd out business-managed, investor-owned electric companies or reduce them to nonentities.

TAXATION of investor-owned electric power companies is an incentive to government electric power. That thesis merits examination by the private electric industry, by taxpayers, and by legislators. If taxes paid by the power companies are high enough to induce tax-free and tax-subsidized electric power, both those who pay and those who impose taxes should be concerned.

That the power companies are good taxpayers and tax collectors is an oft-told story. The electric corporations are worth much more to government from taxation than to their own common stockholders, whose dividends are also subject to income taxes. The nation's electric utilities in 1957 paid out $1,857 million in federal,

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state, and local taxes and only $918 million in dividends to common stockholders.[1]

Government electric projects, by contrast, are, in varying degree, tax immune and tax subsidized. They have no stockholders to tax. The direct tax loss from federal electric power alone has been estimated at a minimum of $48 million a year.[2]

Private power rates must, of necessity, include tax costs, so customers of power companies meet a tax burden which customers of government electric power projects escape. Government discrimination among users of electricity is the inevitable result.

TAX acceleration is a phenomenon of the twentieth century in the United States. Investor-owned electric companies pay their share and perhaps more of the growing tax burden. Power companies invest much more in physical plant for each dollar of revenue than do most nonpublic utility industries. Power company investment in physical plant is about four dollars for each dollar of annual revenue. Property taxes in proportion to revenue are higher for the electric industry than for most nonpublic utility industries.

Many other causes increase the volume of taxation which the electric industry pays. Property taxes grow from higher tax rates and from the vast expansion of electric physical plant made during the past decade. Income and other excise taxes climb from stiffer tax rates, from new tax exactions, and from the upsurge of kilowatt-hours sold. Power companies, because of their economic stability and growth, are a favorite vehicle for more and new taxes. The power companies are prime tax targets because they, along with other public utilities, are regarded by the public as possessing a built-in, almost limitless ability to pass on expenses to customers. The fair return concept is often and wrongly thought of as a guaranty rather than an opportunity.

Brakes on Rate Rises

THAT investor-owned public utilities have limited ability to absorb and pass on more expenses is obvious. Competition and customer resistance may block rate increases as city transit lines and railroads have learned. Regulated public utilities must absorb all new expenses, including taxes, unless those utilities obtain governmental permission for rate increases. Applications for higher rates, as every public utility operator knows, are not lightly undertaken; and, besides, face the roadblock of regulatory lag. When a rate increase has been applied for and finally obtained, customer resistance may supply recruits for the omnipresent advocates of government electric power.

Regional competition for new industry also acts as a brake on higher electric rates. Community leaders, and often the area development departments of the electric power companies themselves, are sensitive to cost factors which, if high, may frighten away new industries or, if low, may attract them. Electric power rates are becoming a greater cost item in many industries. So when tax costs form an important increment in electric rates,

[1] Edison Electric Institute, *Statistical Bulletin*, year 1957, p. 57, Table 49.

[2] "Tax Cost of Federal Electric Power," by Bennett L. Smith, PUBLIC UTILITIES FORTNIGHTLY, Vol. 61, No. 13, pp. 896, 906, June 19, 1958.

perennial government power advocates may happily find themselves joined by government officials, newspaper publishers, businessmen, and plain citizens. These are powerful groups against which no electric company willingly becomes embattled.

Tax-free Power Attracts Industry

USE of tax-free electricity as an inducement for industry is not difficult to illustrate. Tennessee Valley Authority, Bonneville Power Administration, and the Power Authority of the State of New York are government electric power agencies which supply convincing examples. Low-cost power for industry is at least part of the bait wherever government supplies electricity. Government power rates would be 30 to 40 per cent higher if government paid the same taxes and interest charges required of investor-owned power companies, which must earn a fair return or succumb to economic attrition.[3]

Tennessee Valley Authority

TENNESSEE VALLEY AUTHORITY began under the guise of producing hydroelectricity as an incident to navigation and flood control. The initial masquerade is no longer necessary. The authority now generates in steam plants about three-fourths of its power supply, and other valley developments are incidental to electric activity.

TVA supplies the federal atomic project at Oak Ridge. Defense agencies in 1957 used 31.7 billion kilowatt-hours (which was 55.6 per cent of TVA's total power sales), at an average rate of 3.89 mills per kilowatt-hour for firm power and 4.58 mills for supplemental power.[4] Rates to the federal government are excluded from revenues on which TVA pays 5 per cent in lieu of state and local taxes. If federal defense projects bought electricity from power companies, the suppliers would have to pay federal income tax as well as state and local taxes.

TVA sells electricity to industries. Such sales in 1957 amounted to 13.5 per cent of power sales, at an average rate of 3.95 mills per kilowatt-hour.[5] The average, nation-wide industrial rate charged by the investor-owned electric utilities for the year 1957 was about 10 mills per kilowatt-hour, or 2.7 times the TVA average industrial rate.[6]

[3] Ben Moreell, *Our Nation's Water Resources—Policies and Politics*, The University of Chicago, Chicago, Illinois, 1956, p. 163.

[4] *Annual Report of the Tennessee Valley Authority*, 1957, pp. 1 and A40.

[5] *Ibid*, p. A40.

[6] Edison Electric Institute, *Statistical Bulletin*, year 1957, pp. 29 and 41, Tables 21 and 35.

¶ "THE *Power Authority of the State of New York is saying . . . that electric rates are too high at Niagara because the complacent electric utilities are unequally and excessively taxed. The authority's way to reduce power rates is not by equalizing or reducing taxes paid by the power companies. Production, transmission, and distribution of hydroelectricity as a governmental function by the state are the authority's method of lowering rates and relieving a recognized tax inequality. The state thereby eliminates all taxation on electricity produced and sold.*"

TVA Brags Rates Are Lowest

TVA extols its "lowest possible rates" in a 25-year report, published in 1958 at taxpayer expense and mailed free of postage under the government franking privilege TVA enjoys. The TVA statement of reasons for its lowest possible rates is significant for its omissions rather than its inclusions. Exemptions of TVA from income and other excise taxes, from payment of any interest on government appropriations, and from postage expense are all ignored. TVA admits that coal for generation of electricity by steam is transported cheaply by barge, but fails to say how much free waterways furnished by the nation's taxpayers contribute to that cheap barge transportation.

Low power rates for industry are thus proclaimed in the TVA report:

> The low electric rate policy called for by the TVA Act has saved power consumers almost $750 million over what they would have paid for the same amount of electricity bought at the average of rate schedules in effect throughout the country.

Bonneville Power Administration

Bonneville Power Administration is the marketing agency of the Department of Interior for electricity produced at federal dams on the Columbia river. The tax immunity of this federal electric power project has never been curtailed, so state and local governments receive no tax equivalent at all from this grandiose electric empire. Completely tax-free electric power is sold to industries in the Pacific Northwest.

Bonneville Power Administration in its nineteen years of existence has sold 54.5 per cent of its power to private industries at an average rate of 2.22 mills per kilowatt-hour. The aluminum industry has paid 2.11 mills.[7] Compare those rates with the 10-mill average industrial rate charged by the nation's investor-owned, tax-paying electric companies. Not even Tennessee Valley Authority, with its average of 3.95 mills per kilowatt-hour, can compete with Bonneville Power Administration in the attraction of industry based solely on cheap electric power.

New York Power Authority

Let us examine first the nature of the Power Authority of the State of New York. It is a state governmental agency formed and authorized by law to generate, transport, and distribute hydroelectricity. The authority is a corporate, municipal instrumentality of the state, a body corporate and political, a political subdivision of the state, exercising governmental and public powers, and having perpetual existence.[8] The authority is controlled by a board of trustees composed of five members appointed by the governor with the consent of the Senate and serving staggered terms of five years each.

The board of trustees has the statutory power to hold hearings and to compel attendance of witnesses and production of records. Disobedience of the board may result in imprisonment. These are governmental prerogatives of the highest order.

Rates, practices, issuance of securities, and all other activities of the New York Power Authority are by statute entirely exempt from and beyond the jurisdiction

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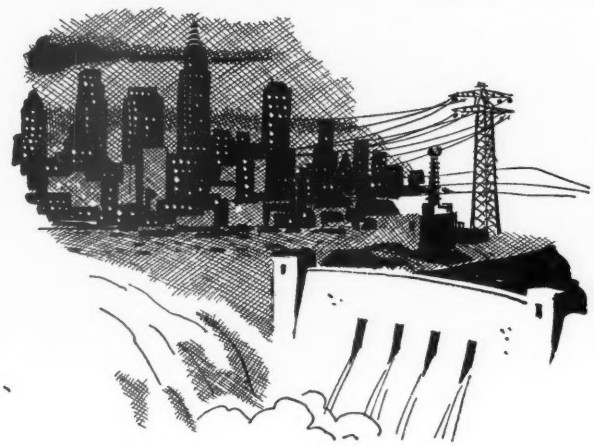
[7] Secretary of the Interior, *1957 Annual Report*, p. 102.

[8] *McKinney's Consolidated Laws of New York*, Annotated, Book 42, *Public Authorities Law*, § 1002.



An Anomalous Doctrine

"THE generation of electricity, an ordinary business activity, by the state of New York, itself a taxing authority, for the paramount purpose of tax avoidance is a paradox. All governments logically should prefer and encourage tax-paying industries because government is wholly dependent on taxes. Power companies should be preferred above most other enterpreneurs because power companies are such good taxpayers and tax collectors. That the state of New York should contend that the power companies, which it regulates and taxes, are paying too much in federal taxes and that the state itself should produce electricity to save federal taxes is strange doctrine . . ."

of the public service commission of the state of New York. All those activities are controlled exclusively by the board of trustees within the framework of the authority's organic law.

The authority has a statutory duty to study the desirability and means of attracting industry into the state of New York.

Niagara Project

THE New York state project at Niagara is almost 100 per cent hydroelectric in purpose. There is no sugar-coating of flood control or navigation as the main purpose, with electricity as a by-product. Navigation, recreation, and beautification are mentioned in the Niagara scheme, to be sure, but play second fiddle to electric power.

Navigation on the St. Lawrence, by by the supreme law of a treaty, is the international responsibility of Canada and the United States. Our government acts through the Saint Lawrence Seaway Development Corporation (created by Con-

gress in 1954), supervised by the Secretary of the Army. New York state plays a minor rôle in navigation on the St. Lawrence.

The theme song at Niagara is low-cost, four-mill, tax-free electric power to attract industries. New York state officials have led the tax-saving chorus for a decade or more. Avoidance of federal income taxes was the first appeal of the officials, but they would avoid local taxes as well.

Strange Paradox

THE generation of electricity, an ordinary business activity, by the state of New York, itself a taxing authority, for the paramount purpose of tax avoidance is a paradox. All governments logically should prefer and encourage tax-paying industries because government is wholly dependent on taxes. Power companies should be preferred above most other entrepreneurs because power companies are such good taxpayers and tax collectors.

That the state of New York should contend that the power companies, which it regulates and taxes, are paying too much in federal taxes and that the state itself should produce electricity to save federal taxes is strange doctrine but one somewhat understandable from a selfish viewpoint. The evil of such tax avoidance is worsened and made more anomalous when the state seeks to escape not only federal taxes but also state and local taxes. The New York Power Authority evades all taxes, both for itself as an entrepreneur in an ordinary, industrial field and for all investors who own the debt obligations issued by this authority. Such state debt securities are also exempt from federal income taxes. Customers and security holders of the New York Power Authority thus enjoy complete tax immunity.

Contrast in Taxes

A POWER company at Niagara, by contrast, would pay 52 per cent of taxable income as federal income tax and would also pay state and local property and income and other excise taxes. Security holders of such a power company would pay income and other excise taxes at all government levels on dividends and interest paid to them by the power company.

Government and general taxpayers would thus benefit doubly in taxes from investors in and from a power company project at Niagara.

Tax loss confined to income from tax-exempt interest on authority securities will be considerable. The authority has already issued $349,050,000 in principal amount of revenue bonds. Issuance of $700 million in principal amount is projected. Power companies would pay an average annual interest rate of at least 3 per cent (more nearly 4 per cent in 1958) on bonded debt or a minimum of $10.5 million on the $350 million already borrowed by the authority and $21 million on the $700 million of debt in prospect. Since over 30 per cent of individual income goes for taxes, of which about 20 per cent represents federal and about 10 per cent state and local taxes, investors in a power company at Niagara on $700 million of corporate bonds would annually reward Uncle Sam with over $4.2 million and New York state and local governments with over $2.1 million.

Condemns Local Tax Relief

THE counties and cities at Niagara naturally became concerned about their potential tax loss from state-owned hydroelectricity, and sought relief. The local tax agencies wanted permanent tax equivalents from the state Power Authority; but the answer of the authority was a flat refusal, buttressed by a brochure issued on December 2, 1957.

This New York Power Authority brochure, entitled "Niagara Power and Local Taxes," is a frank argument in favor of state government electric power as a means of bypassing federal, state, and local taxes.

Local political subdivisions of the state of New York are accused in the brochure of frittering away with inquisitions the valuable time of Power Authority officials. Efforts of Niagara municipalities for tax relief are thus condemned in the brochure:

> Instead of co-operating with the New York State Power Authority in the construction of the project, roadblocks of every description were placed in our path. Lengthy, costly hearings before the Federal Power Commission were forced upon us by local political subdivisions, indefinitely delaying financing, fabrication, organization, and beginning of work, discouraging our personnel, frittering away our time with inquisitions. The authority, instead of being welcomed to the frontier, and in spite of the reputation of its executives and staff based on many years of successful performance elsewhere, was accused of malicious and sadistic attacks on the peace and tranquillity of the community with a callous intent to disrupt local business and traffic and destroy the beauty of the area.

THE best the authority would do was to offer, for immediate acceptance, $3 million in lieu of taxes for 1956. This relatively petty offering is to be paid in decreasing annual allotments over a five-year construction and transition period. This tax equivalent was in March, 1958, confirmed by the New York legislature and governor.

Niagara counties and cities, though state agencies themselves, have been powerless against the Power Authority, and have had to take what they could get from the voluntary handout proffered by the Power Authority and backed up by the governor.

¶ "TAXES *comprise the largest single item of cost of doing business. Lower power rates based on tax immunity and subsidy, therefore, act as a powerful incentive to government electric power. Government power projects all receive other governmental advantages, such as appropriations, nonrecovery or partial recovery of construction costs, no interest or inadequate interest rates on public funds invested, and ability to borrow money from private lenders at lower interest rates than those paid by private corporations. Tax immunity and tax subsidy are the twin pillars which support government electric power.*"

The Power Authority's argument in this brochure against local taxation makes thirteen points. Point 7 charges that the utilities in the Niagara area are excessively taxed:

> (7) Industries in the Niagara area are not taxed in the same proportion as utilities.

The Power Authority evidently means in Point 7 that utilities are paying too much rather than too little in taxes, as will be explained later in this discussion.

Lawmakers Vote for Taxes

THE local tax plight at Niagara must have been viewed sympathetically by the New York legislature. That body in 1957 passed bills requiring the Power Authority to make payments to the county of Niagara and the towns of Niagara and Lewiston in lieu of real property taxes and also nonproperty taxes computed "as if the Niagara project and the authority's operations in connection therewith were conducted by a private corporation." But these bills were vetoed by New York's governor. The New York legislature in 1958 capitulated on this tax issue and confirmed payment of $3 million over a five-year period to Niagara county and the city of Niagara Falls in lieu of taxes on land becoming tax-exempt from acquisition by the Power Authority.

The alleged disproportionate share of Niagara taxes paid by public utilities is further analyzed in a section of the brochure, entitled "The Case against Proposals for Local Taxes or Payments in Lieu of Taxes on the Niagara Power Project of the Power Authority of the State of New York." By text, diagrams, and cartoon illustrations the Power Authority reports that Niagara industries in 1956 had a full or true tax value of about $82,947,823 and paid nearly 20.79 per cent of the tax burden, whereas public utilities had a value of $70,618,727 and bore 24.67 per cent of the tax burden. If industries and utilities had been assessed equally, the authority contends, industries would have borne 25 per cent and utilities 21 per cent of local taxes, just the reverse of the present proportions borne by each.

Excessive Taxes Hike Power Rates

THE writers of the brochure wind up this tax comparison with the following significant (if veiled) attack on private utilities, among which the power companies are in the spotlight:

> It may be that the utilities have not objected to this disproportion (of local taxes) because the additional assessment has been reflected in their rate base and the increased taxes passed on to the power consumers, but that aggravates rather than lessens the inequity.

The Power Authority of the State of New York is saying in this brochure that electric rates are too high at Niagara because the complacent electric utilities are unequally and excessively taxed. The authority's way to reduce power rates is not by equalizing or reducing taxes paid by the power companies. Production, transmission, and distribution of hydroelectricity as a governmental function by the state are the authority's method of lowering power rates and relieving a recognized tax inequality. The state thereby eliminates all taxation on electricity produced and sold.

Power to Tax Is the Power to Destroy

"THE authority [of New York] cannot accept and pass on to banks to which we apply for loans and to prospective purchasers of our definitive bonds, tax burdens which are not authorized by our act, which are contrary to sound established financing principles, and which would create vicious precedents, prevent the borrowing of money and sale of bonds on reasonable terms, discriminate against the St. Lawrence area, destroy the business reputation and integrity of the authority, and indefinitely delay the entire project. The power to tax is the power to destroy."

From Power Authority of New York brochure—1957

THUS a great state, the most populous and the most influential in the nation, itself an exactor and collector of taxes, publicly complains, through a powerful political agency of its own, that the power to tax, even at the lowly county and municipal level, is the power to destroy. This state agency which generates and sells hydroelectricity declares that it should not be taxed anywhere or in any amount. In language which fits a business corporation exactly and which likewise justifies exemption of all business enterprises from all taxation, the authority brochure summarizes its arguments for its own tax avoidance:

> The legislature has recognized that to give local governments the power of taxation over these authorities could destroy them, and that by the same token prudent investors could not be expected to invest in an enterprise, the only income of which was its revenues, where those same revenues could be diverted in an indefinite amount through taxation by local governments to meet their own financial problems. This be-

comes doubly true in a period of tight money and high interest costs as presently (1957) exists.

Is not the income of electric power corporations limited to revenue from the sale of electricity? Is not the power to tax electric utility companies the power to destroy them? Cannot the revenues of electric utility companies be diverted in an indefinite amount by local governments to meet their own financial problems? Does not the tax plight of the power companies become doubly acute when the exactions of the federal and state governments to meet their own financial problems are added to the tax demands of municipalities? Will prudent investors long continue to buy securities of power companies when revenues can be so diverted by taxation?

Here are frank and revealing admissions by the Power Authority of the great state of New York. Taxes can destroy all business enterprises. Local taxes on the complacent public utilities at Niagara are excessive.

More Industries Yield More Taxes

The authority hopes in the end to get more taxes for the local governments and the state by attraction of industry to Niagara. The bait on the industrial hook will be low power rates, four-mill power, resulting from tax-free generation, transmission, and distribution of hydroelectricity. The tax burden of one segment of industry, that of electric power, is too high, according to the Power Authority, whether by demands of government or by complacency of the power companies, or both. The state of New York will, by the magic of a change of name, make a governmental function out of an everyday commercial enterprise — the generation, transmission, and distribution of electric power—and get more tax-paying industry by ending taxation on a specific industry.

How does the authority expect to get more tax-paying, nonelectric industry at Niagara? By competition with other areas, by offering low-cost, tax-free electricity at four mills per kilowatt-hour. New York state and Niagara will lure industries which might go elsewhere but for cheaper, tax-immune power. With four-mill power, a brochure cartoon-type illustration shows, local industry at Niagara will expand 25 per cent in the next five years.

The Power Authority points to Massena and the St. Lawrence as prime examples of prosperity from public expenditures and from prospects for tax-free electricity. By text, pictures, charts, and cartoon illustrations the New York Power Authority asserts that the "North Country never had it so good," and that the booming prosperity is assuming permanent form. The authority boasts that two aluminum companies are spending $125 million on the St. Lawrence and that miscellaneous betterments will exceed another $40 million. The hydroelectric and navigation projects have brought a temporary boom at Massena, which, according to the authority, will be duplicated to a considerable degree at Niagara.

Construction of a hydroelectric plant at Niagara by a tax-paying power company would bring a temporary local boom, no less than construction by the state of New York. Reduction in taxes to be paid

by a power company could bring as cheap and more likely cheaper electric rates than those of a state agency, but the private power company approach has not appealed to recent New York governors of either political party or to the directors of the Power Authority of that state.

Industry Bolsters Stand of "Authority"

THE New York Power Authority's prediction of industrial growth to result from tax-free electric power could be discounted somewhat as a self-serving claim but for the concurrence of nonelectric industry at Buffalo and Niagara. These nonelectric industries intervened before the Federal Power Commission in support of the authority's application for a water-power license and against the opposition of certain local municipalities to that application. The nonelectric industries, 27 at Niagara Falls and 16 at Buffalo, intervened after Congress had cast the die in favor of hydroelectric development by New York state at Niagara and after the collapse of the Schoellkopf generating plant of Niagara Mohawk Power Corporation had brought temporarily higher power rates. These interveners, which include some of the largest private corporations in America, are engaged in electrochemical, electrometallurgical, steel, milling, oil, and other basic industrial production. Their testimony and arguments before the Federal Power Commission about what is necessary in the way of electric power rates to retain and attract industry are entitled to great weight.

THE nonelectric industries at Buffalo and Niagara Falls testified and argued before the Federal Power Commission that they supported the entire economy of the city of Niagara and the town of Lewiston, that their industries were mobile and could move elsewhere to get lower power rates, and that the industries needed power at the lowest possible cost. In their brief before the Federal Power Commission these intervening industries emphasized by putting in boldfaced type the following statement:

> Let there be no doubt—industry needs the Niagara power project. It needs it soon; time is running out. And, industry needs the power at the lowest possible cost.

The industrial rate at Niagara has been

¶ "GOVERNMENT *ownership of electric power facilities is not an imperative demand by leaders of either political party or by members of Congress or by state legislatures or by the public at large. Most of our legislative and political and economic leaders praise private enterprise. There is danger, however, that government electric power and state Capitalism and Socialism in the power field induced by tax saving and tax subsidy will grow, section by section, until they crowd out the private companies or reduce them to nonentities. And area competition for industry can play a big part in the encroachment of government electric power.*"

7½ mills, according to the authority's brochure. These industries are, therefore, complaining of a rate which at 7½ mills is below the national average of 10 mills charged by the investor-owned electric companies as a whole.

Competitive Position Vital

As to the tax loss objected to by the local municipalities the nonelectric industries had this to say in their brief:

> The biggest factor—overall—in the tax picture of the city of Niagara Falls—and Lewiston—is the competitive position of the basic industries, which depends significantly upon the cost for power.

It should be here emphasized that these industries intervened after a water-power license at Niagara to the New York Power Authority had become a certainty and in face of higher power rates for the Niagara area following the Schoellkopf disaster. One may assume that these industries, which located at Buffalo and Niagara Falls while electric power was entirely supplied at low rates by a private power company, would have preferred that a tax-paying power company develop hydroelectricity at Niagara. Certainly that should be their preference because the iron, steel, metallurgical, oil, and similar industries at Niagara are also in the natural resource field.

If water power should be developed by government as a natural resource, why should not the same principle apply to the other natural resources? The position of the nonelectric industries in the Niagara controversy is here referred to solely because their testimony and argument bolster the claim of the New York Power Authority that the lowest possible power rates at Niagara, for whatever reason, will give that favored area a competitive advantage over less favored regions in the retention and attraction of industry.

That regional competition for new industry is intensifying has already been stated in this discussion. With New York added to the Tennessee and Columbia river valleys as tax-free electric power havens for industry, will not more of the remaining areas of the nation demand equal electric rates and equal tax treatment with those favored regions?

Government ownership of electric power facilities is not an imperative demand by leaders of either political party or by members of Congress or by state legislatures or by the public at large. Most of our legislative and political and economic leaders praise private enterprise. There is danger, however, that government electric power and state Capitalism and Socialism in the power field induced by tax saving and tax subsidy will grow, section by section, until they crowd out the private companies or reduce them to nonentities. And area competition for industry can play a big part in the encroachment of government electric power.

Conclusion

The tax burden imposed on investor-owned electric corporations puts them at a disadvantage when compared with tax-free and tax-subsidized government electricity. Taxes comprise the largest single item of cost of doing business. Lower power rates based on tax immunity and subsidy, therefore, act as a powerful

incentive to government electric power. Government power projects all receive other governmental advantages, such as appropriations, nonrecovery or partial recovery of construction costs, no interest or inadequate interest rates on public funds invested, and ability to borrow money from private lenders at lower interest rates than those paid by private corporations. Tax immunity and tax subsidy are the twin pillars which support government electric power.

The private power industry and all supporters of private enterprise should be on the alert against disproportionate imposition of taxes on the power companies lest the advocates of public power triumph, lest one region after another follows Tennessee valley, Nebraska, Columbia valley, and now New York state at Niagara on the socialized road of tax-free and tax-subsidized electric power.

BELIEVERS in the traditional capitalistic way of a private electric power industry should heed and urge for that industry recognition of the principles laid down by the Power Authority of the State of New York in Point 13 of its 1957 brochure:

> The authority cannot accept and pass on to banks to which we apply for loans and to prospective purchasers of our definitive bonds, tax burdens which are not authorized by our act, which are contrary to sound established financing principles, and which would create vicious precedents, prevent the borrowing of money and sale of bonds on reasonable terms, discriminate against the St. Lawrence area, destroy the business reputation and integrity of the authority, and indefinitely delay the entire project. The power to tax is the power to destroy.

POWER companies may well paraphrase in their behalf those ringing words of the brochure:

The investor-owned power companies cannot accept and pass on to their investors and to present or prospective purchasers of their securities and to their customers tax burdens which are contrary to sound established financing principles and which would create vicious precedents, prevent the sale of equity or debt securities on reasonable terms, discriminate against the areas and customers they serve, destroy the business reputation and integrity of electric corporations, and indefinitely delay the needed construction of additional plant facilities. *The power to tax, indeed, is the power to destroy!*

Taxation at present levels is an incentive to government electric power, probably the strongest incentive of all.

"IF I had to reduce everything I have learned in the last fourteen years to one sentence, I could sum it up in these words: 'Gentlemen, please do not give your government so much money. Easy money is the root of political corruption . . . The men in Congress who pushed the American economy over the brink from financial responsibility to runaway inflation will have to answer for the destruction of everything political, economic, moral (and) intellectual that has made America strong.'"

—WILLIAM E. JENNER,
U. S. Senator from Indiana.

"Public Utilities" Now Taught By Few Colleges

Today not more than 75 to 80 of the some 1,800 American colleges and universities offer a specialized economics course in "Public Utilities." General courses in "Business and Government" are now popular in the curriculums of institutions of higher learning. The philosophies they favor will inevitably affect the economic and legislative climate of the future.

By JOHN D. GARWOOD*

A WELL-KNOWN philosopher of the twentieth century once observed: "The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed, the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. I am sure that the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas."

There will always be differences of opinion concerning the highly controversial and complex subject of government regulation of business. Twentieth century study of economics has as its hard core of study the activities of the federal government as they affect the private producing units in the economic system. Although this frame of reference for study is not new, yet prior to the last quarter of a century it did not dominate the field as it does at the present time.

JAMES BUCHANAN as long ago as 1852 wrote to Franklin Pierce:

> The federal government for some years past has been rapidly becoming more and more extravagant in its expenditures. The hosts of contractors, speculators, stockjobbers, and lobby members which haunt the halls of Congress, all desirous per *fas aut nefas* (by legitimate or illegitimate means) and on any and every pretext to get their

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arms into the public Treasury, are sufficient to alarm every friend of his country. Their progress must be arrested, or our government will become as corrupt as that of Great Britain.[1]

THE more recent warnings of ex-President Hoover express a similar thought:

> The American mind is troubled by the growth of collectivism throughout the world.
>
> We have a few hundred thousand Communists and their fellow travelers in this country. They cannot destroy the Republic. They are a nuisance and require attention. We also have the doctrinaire Socialists who peacefully dream of their Utopia.
>
> But there is a considerable group of fuzzy-minded people who are engineering a compromise with all these European infections. They fail to realize that our American system has grown away from the systems of Europe for 250 years. They have the foolish notion that a collectivists economy can at the same time preserve personal liberty and constitutional government.
>
> The steady lowering of the standard of living by this uncompromised collectivist system under the title "austerity" in England should be a sufficient spectacle. It aims at a fuller life but it ends in a ration. . . .
>
> We have not had a great socialization of property, but we are on the last mile to collectivism through governmental collection and spending of the savings of the people.[2]

[1] James Buchanan, Works, edited by John Bassett Moore, VIII, p. 453.
[2] Address at Palo Alto, California, August 10, 1949.

BUT there is yet another view current in the U. S. This thinking is well illustrated by the comments of David E. Lilienthal, former chairman, Tennessee Valley Authority, 1944:

> The methods of democratic development represented by the TVA are distinctive, but their roots lie deep in the soil of American tradition and common experience. They are methods that differ from those customarily employed both by private enterprisers and public agencies.
>
> Nevertheless, the TVA experiment has been carried on under the rules of the game of American life. It required no change in the Constitution of the United States. Congress has maintained full control. Property rights and social institutions have undergone no drastic amendment.

Decrease in College "Public Utilities" Courses

DURING the second decade of the twentieth century a course of study entitled "Public Utilities" was brought into the economics curriculum in our colleges and universities across the country. From the Munn case the concept of public utilities was broadened, refined, explored, and hardened in a succession of other cases through the years.

Thus, the field of public utilities has been defined by the courts. It represents an area where government regulation is accepted as necessary by academicians and practitioners alike. Yet, public policy which involves a degree of government control as well as some parallel ownership of productive facilities represents an area

of study where opposing views may become sharply focused.

THE study of Public Utilities as a formal field of study in departments of economics reached full flower in the decades of the nineteen twenties and thirties. At the present time, according to a recent study, it appears that not over 75-80 colleges and universities the country over offer a course in Public Utilities in their economic curriculum.[3]

Some of the larger colleges noted as not offering Public Utilities as a course of study in economics include the University of Cincinnati, University of Florida, Pennsylvania State University, University of Delaware, Northwestern University, Texas A and M, Drake University, University of South Carolina, University of Buffalo, University of Virginia, University of Michigan, Wake Forest College, Tufts University, Long Island University, Catholic University of America, Brooklyn College, Duke, University of New Hampshire, Kansas State, Kansas University, Marquette University, University of Idaho, Brown University, Creighton University, Oklahoma State University, University of Connecticut, University of Missouri, Xavier University, etc.

FURTHER evidence of the declining importance of public utilities in college economic curriculums is indicated by the dearth of textbooks in the field.

At the same time relatively few doctoral dissertations are being prepared in the public utility field.

This decline of interest is attributed by teachers of public utility courses to several factors. It is alleged that Public Utilities is too specialized a course for small departments of economics and business. Secondly, it is noted that other courses in economics offer more of a current nature —taxation, banking, etc. Thirdly, the number of staff members who have preparation in the field is small; hence, the course is not pushed.

Lastly, the development of a new course in the field of economics—"Business and Government"—has taken the place in many schools of the traditional course in "Public Utilities."

"Business and Government" Course

THIS relatively new postwar course in departments of economics, Business

[3] "What Are They Teaching about Public Utility Regulation?" by John D. Garwood, PUBLIC UTILITIES FORTNIGHTLY, May 23, 1957, pp. 733-736.

¶ A GREAT *number of economic textbooks were written after World War II on the subject of government in its relation to business. There is scant doubt but that government policy exerts an important influence on the college curriculum. Most texts used in courses in "Business and Government" devote only two to three chapters on public utilities. Some, however, do dilate to some extent in explaining the development of the public utility concept. As a consequence, a course of this kind, depending upon the books used, can substitute in part for the traditional course in "Public Utilities."*

and Government, has had a favorable reception all over the academic field. Courses find their way into departments chiefly because of an expressed or contemplated demand for such a course. The tremendous scope of government activity at the present time has led to the development of this new course.

THE decade of the thirties saw the federal government, through the media of its commissions and newly passed laws, invade many fields of economic endeavor. Labor management relations were legally formalized in the National Labor Relations Act. Other regulatory acts in labor followed.

In the investment field the Securities Act of 1933, Securities Exchange Act of 1934, Public Utility Holding Company Act, 1935, Maloney Act, 1938, etc., all brought the arm of government into the rôle of regulation.

In addition, the expanded activities of the antitrust department, New Deal relief and public work measures, conservation, the farm program, etc., all increased the interest of the student in the relationship of the government to the component parts of the economy.

During the thirties there was a realignment in the philosophy of those in public places as to the function of government. Further, the enlarged expenditure program of the government, which accompanied the changes in the tax structure, called for study by academicians.

In 1936 John Maynard Keynes in his book the *"General Theory of Employment, Interest and Money,"* provided a philisophical content and explanation for an enlarged governmental rôle in the economic system.

World War II and the postwar years found the government playing a still larger rôle in the nation's economic affairs. The Employment Act of 1946 made it mandatory for the government to assume responsibility for employment.

Postwar Textbooks

THE war years with the small college enrollments and the paper shortage postponed textbook production, but the gap was filled quickly by the writers shortly after the war. Hence, Business and Government textbooks did not appear on the academic horizon until after the war. The fashion in educational circles to integrate the disciplines and subject matter found a ready outlet in the Business and Government course.

This new course is generally taught as a junior or senior course and calls for a number of courses in economics as background. It has found general favor with those in economics because it cuts through virtually every economic field of study. Regardless of a teacher's major field, it is likely that government policy is an extremely important factor in his field.

THUS, it is developing as one of the most popular and influential courses in the departmental offerings. It is loaded with controversial issues, and value judgments stand ready for decision making in each chapter. There is no other course in the field of economics which carries a greater potential for influencing students than does this course.

The great number of textbooks which have been written in the field attest to the interest of the writers. This is an upper division course, yet the books available are many.

Economic Control Principles Given by Marshall E. Dimock in His Book *"Business and Government"*:

"1. Government economic control should be democratic both in its initiation and its operation.

"2. Before individual economic freedom is circumscribed, a convincing showing of public interest must be demonstrated.

"3. When the government decides to produce social goods and services there should be a showing that community costs and benefits be equated.

"4. Controls should be consonant with and introduced within the framework of the free enterprise system.

"5. The objectives of the control mechanism should be clearly stated and constantly scrutinized.

"6. The attempted solution should be tailored to the need, being neither larger nor less than the problem it is designed to meet.

"7. Any control should be strong to assure compliance and achieve its objectives.

"8. The burden of proof should be on those who advocate new controls, for the assumption of a self-regulating market is that few controls are necessary.

"9. Finally, wherever possible, indirect rather than direct controls should be given preference."

Representative Textbooks

THE chief textbooks in the field at the present time include the following: *"Government Regulation of Business,"* by Ronald A. Anderson, South-Western, 1950; *"Our Competitive System and Public Policy,"* by Thomas J. Anderson, South-Western, 1958; *"Private Enterprise and Public Policy,"* M. Anshen and F. R. Wormuth, Macmillan, 1954; *"Business and Government,"* by Marshall E.

Dimock, Holt, 1957; *"Government and the American Economy,"* by Merle Fainsod and Lincoln Gordon, Norton, 1938; *"Public Control of Economic Enterprise,"* by Harold Koontz and Richard Gable, McGraw-Hill, 1956; *"Government and Business,"* by Vernon A. Mund, Harper, 1955; *"The Regulation of Industry,"* by Dudley F. Pegrum, Richard D. Irwin, 1949; *"Corporate Concentration and Public Policy,"* by Harry L. Purdy, Martin L. Lindahl, and Edward W. Carter, Prentice-Hall, 1950; *"Business and Government,"* by Charles C. Rohlfing, Edward W. Carter, Bradford W. West, and John G. Herbey, Foundation Press, 1949; *"Government and Business,"* by Howard R. Smith, Ronald Press, 1958; *"Government's Rôle in Economic Life,"* by George A. Steiner, McGraw-Hill, 1953; *"Public Policies toward Business,"* by Clair Wilcox, Richard D. Irwin, 1955.

Emphasis in Books Varies

As might be expected there is a varying degree of emphasis in these different books. There is, however, a continuity of content. The task to which all the writers address themselves is an examination of the impact of governmental policy and activity on the business community.

The common point of departure for this study is an establishment of the tenets of a free enterprise competitive economic system. Under such an economic system the process of allocation of resources and the function of price are studied. This is basic to any understanding of our economic processes.

From this point of emphasis most writers examine the rôle the government has played, dating back to the last part of the nineteenth century and the enactment of the Sherman Anti-Trust Act. Some of the authors never leave this area of emphasis in their discussion; *i.e.,* they dedicate their efforts to the problem of monopoly, cartels, and government antitrust activity.

Thomas J. Anderson in his book *"Our Competitive System and Public Policy,"* published this year, devotes the entire work to this particular problem.

Clair Wilcox in his book *"Public Policies toward Business,"* 1955, devotes 16 of his 31 chapters to this problem. Wilcox then fills out his book with a discussion of the public utility problem and government ownership of productive facilities.

Howard R. Smith's recent 1958 book, *"Government and Business,"* utilizes an historical approach, an approach not used by other writers. Smith traces the government rôle from our beginnings as a nation down to the present time.

Most of the writers bridge the gap between "public" and "private" through the use of the public utility concept. Wilcox emphasizes it. Koontz and Gable, *"Public Control of Economic Enterprise,"* 1956, devote a third of the book to explaining the development of the public utility concept.

THUS, the course does in part, depending upon the author, substitute for the traditional course in Public Utilities. Most writers, however, spend at most only two to three chapters on public utilities. Probably the most widely used book in the field, a book which is in its third edition, 1957, is Marshall E. Dimock's *"Business and Government."* Dimock ranges widely over the field of economics. He follows the traditional approach, setting forth the bastions of a free enter-

prise system and then developing the monopoly problem. He goes into the problem of government and labor, the farm situation, conservation, public utilities, government ownership of productive facilities, the problem of the development of atomic energy, the cold war, the problem of government expenditure and taxation, and, lastly, federal government responsibility for employment.

The pattern development used by Dimock has received wide acceptance by academicians in the field. The approach of George A. Steiner and Vernon A. Mund in their two books is similar.

Patterns of Philosophy

THE books in the field come with differing philosophical overtones as to the part the government should play in the economy. Most authors cannot resist getting hold of controversial issues and stating a value judgment, either directly or indirectly. Probably one of the most direct is that of Wilcox. In his preface he states:

> I have made no attempt, in this text, to conceal my own judgments. The student will not have to be acutely perceptive to discover, for instance, that I am a believer in the antitrust laws and a critic of agricultural price supports; that I am not impressed by the performance of most public utility commissions but am an admirer of the Tennessee Valley Authority. I have felt that it would be at once more honest and more entertaining if I were to let my bias show. The reader, accordingly, is forewarned. But it may be well for me to make my view explicit, lest I be accused of seeking subtly to subvert the youth.

In my hierarchy of value, I put freedom first and plenty and progress above equality, stability, and security. I believe that these values are better served by the dispersion than by the concentration of power. I therefore prefer competition to monopoly, private enterprise to public enterprise, and free markets to administrative controls. In judging economic policies my standard is that of consumer welfare, as measured by the quantity, quality, and variety of goods and services that are made available. But I recognize the need for compromise. I would not leave the worker or the farmer entirely at the mercy of the market. I see the wisdom of employing a rule of reason in the enforcement of the antitrust laws. I believe that the government should take the initiative in conserving nat-

¶ NO *book can ever be completely objective. The author of one economic text (*"PUBLIC POLICIES TOWARD BUSINESS," *by Clair Wilcox) freely states beliefs which reveal his personal views and economic philosophy in the treatment of his subject. He believes in antitrust laws, is not impressed by the performance of most public utility commissions, and is an admirer of TVA. He thinks dispersion of rather than concentration of power is desirable. He prefers competition to monopoly.*

ural resources and in controlling the flow of waters in river valleys.[4]

Of the authors, Dimock might be regarded as the "happy medium" between those who believe in a stronger rôle for government in the economy and those who favor lessening the rôle of government. Thus, in his concluding chapter, "Toward a Science of Public Policy," Dimock notes with approval the principle developed by author Steiner (cited previously) for introducing new economic controls into the system. These principles as given by Dimock are:

1. Government economic control should be democratic both in its initiation and its operation.
2. Before individual economic freedom is circumscribed, a convincing showing of public interest must be demonstrated.
3. When the government decides to produce social goods and services there should be a showing that community costs and benefits be equated.
4. Controls should be consonant with and introduced within the framework of the free enterprise system.
5. The objectives of the control mechanism should be clearly stated and constantly scrutinized.
6. The attempted solution should be tailored to the need, being neither larger nor less than the problem it is designed to meet.
7. Any control should be strong to assure compliance and achieve its objectives.
8. The burden of proof should be on those who advocate new controls, for the assumption of a self-regulating market is that few controls are necessary.
9. Finally, wherever possible, indirect rather than direct controls should be given preference.[5]

Adding It All Up

Here then is a course regarded as top drawer in the field of economics. It has largely supplanted the course in Public Utilities. It is used by many schools as a capstone course, a binding up and tying together of the work in the economics. This is a last course in economics for many undergraduates. It has a tremendous influence on their thinking.

The thinking in economics will be shaped for decades to come by these dozen or so books noted above. Anyone interested in the thought processes now being pursued in the economics classrooms might well examine these sources of reference.

Long ago a philosopher once said: "Tell me today what the philosopher thinks, the university professor expounds, the schoolmaster teaches, the scholar publishes in his treatises and textbooks, and I shall prophesy the conduct of individuals, the ethics of businessmen, the schemes of political leaders, the plans of economists, the pleading of lawyers, the decisions of judges, the legislation of lawmakers, the treatises of diplomats, and the decisions of a state a generation hence."

[4] *"Public Policies toward Business,"* by Clair Wilcox. Richard D. Irwin, 1955. Preface, p. X.

[5] *"Business and Government,"* by Marshall E. Dimock, Henry Holt & Co. New York, pp. 534, 535.

Does It Pay to Capitalize Taxes During Construction?

By WILLARD F. STANLEY*

By adopting a policy of capitalizing taxes during construction even to a minimum extent, important financial advantages result both to the utility companies and their stockholders. Here are some facts and figures for management to ponder.

It is usually to the interest of utilities to increase the rate base of their properties to as high a figure as legitimately feasible. Under present approved accounting methods for the industry, there are many items which can be applied toward increasing the rate base by enhancing the book cost of new facilities.

One such item is the capitalization of taxes accrued during construction. The Uniform System of Accounts of the National Association of Railroad and Utilities Commissioners and Federal Power Commission both specifically permit the capitalization of taxes during construction as a part of the cost of the projects to which such taxes relate. The taxes which may be so capitalized are ad valorem taxes levied by states, counties, municipalities, school districts, or other governmental subdivisions. These taxes are customarily based on the assessed value of the property being constructed. Such assessed value comprises the portion of the fair value of the properties on which it is customary to levy taxes. This portion varies in the different localities, and sometimes even as between different taxing authorities in the same locality.

In considering the feasibility of adopting a policy of capitalizing taxes of this kind, it is first necessary to dispose of an all-important legal question. Not all states or other governmental subdivisions provide for including in their tax assessments the values of property in process of construction and not yet completed. Where the law does not provide for assessing physical properties for taxation until con-

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struction is completed, there will, obviously, be no taxes on projects under construction until after their completion, and, consequently, there will be no taxes to capitalize.

Legality of Tax Capitalization

WHERE local law provides for taxing property which is under construction on the annual date for the assessment of taxes, to the extent constructed at that date, then capitalization of these taxes appears to be fully justified. There also seems to be local authority, in many cases, for capitalizing property under construction to the extent of its cost on the books at the annual assessment date, even though it may not be the practice of the taxing authorities to segregate, on the tax bills rendered to the corporation, the portion of assessed value applicable to property under construction.

The law assumes that which should be done has been done. Therefore, if the property under construction is subject to taxation by law to the extent of its value on the date of assessment, the total amount of taxes billed to the corporation owning such uncompleted property must be assumed legally to include a proper proportion of taxes on the uncompleted projects.

THE percentage of the total taxes billed, applicable to the uncompleted property could reasonably be assumed to be the proportion which the cost of the properties under construction at the assessment date bears to the total book values of all the corporation's properties subject to taxation on such date. For convenience, there should be no reasonable objection to the company using its book values at the end of the calendar month nearest to such date of assessment for the purpose of making this apportionment in order to arrive at the proper amount of taxes to be capitalized.

The types of property under construction which are subject to taxation in those jurisdictions where uncompleted property is taxable, may vary between different states and communities. These taxes customarily apply only to real property; *i. e.*, land and facilities which, under local law, are classified as real estate. The concept of what constitutes real estate may vary considerably as between different localities. This is another matter which must be decided by the company's counsel, as the amount of taxes capitalized must, obviously, be limited to those applicable to types of property under construction which are treated under local law as real estate, and, consequently, are taxable to the extent of their value on the assessment day.

Other Considerations

QUITE apart from legalities, it may be found that to extend the policy of capitalizing taxes to all types of property under construction which are legally subject to ad valorem taxation, imposes too great a burden on the company in the form of keeping additional detailed records. If this proves to be the case, the items as to which the taxes are capitalized could be limited. Capitalization of taxes could be applied with little additional effort to new power plants or gas transmission lines or additions thereto, as well as to new structures of various kinds, including, of course, appurtenant land in all cases. The capitalization policy might also be applied without great difficulty to major new electric transmission lines and important sub-

Taxation of Property under Construction

"WHERE *local law provides for taxing property which is under construction on the annual date for the assessment of taxes, to the extent constructed at that date, then capitalization of these taxes appears to be fully justified. There also seems to be local authority, in many cases, for capitalizing property under construction to the extent of its cost on the books at the annual assessment date, even though it may not be the practice of the taxing authorities to segregate, on the tax bills rendered to the corporation, the portion of assessed value applicable to property under construction. The law assumes that which should be done has been done. Therefore, if the property under construction is subject to taxation by law to the extent of its value on the date of assessment, the total amount of taxes billed to the corporation owning such uncompleted property must be assumed legally to include a proper proportion of taxes on the uncompleted projects.*"

stations, if these are taxable in the local jurisdictions.

But assuming that the items of property capitalized for taxes are limited to additions to production plant, plus miscellaneous structures, the advantages to a utility company of adopting such a policy may be estimated as follows:

Let us take, for example, an electric utility with $400 million of assets and $140 million book value of common stock equity. Let us, further, assume that this company expands at the average rate of 8 per cent per annum, or by $32 million a year, of which an average of 50 per cent or $16 million consists of additions to production plant and miscellaneous structures readily identifiable by work orders for the purpose of computing taxes thereon during construction which are to be capitalized. With an assumed tax rate of 1½ per cent, this would involve capitalizing an average of $240,000 of taxes a year, with consequent increase in average an-

nual net income of $120,000, after allowing for federal income taxes at a rate of 50 per cent.

THE annual increase in depreciation and in ad valorem taxes, by reason of the increase in the book values of the new facilities because of such capitalization of taxes during construction, should aggregate something like 4 per cent of the amount capitalized. Less federal tax at 50 per cent, the net charge to income from this source would be 2 per cent of the amount capitalized. For the first year this would be about $5,000, reducing the net gain in income for that period to around $115,000.

While the increase in income from capitalization of taxes during construction would remain static as an annual amount so long as the same rate of expansion continues and the same proportion of the additions are capitalized, the increase in depreciation and ad valorem taxes would be cumulative, increasing annually as the aggregate amount of taxes so capitalized increased from year to year. At the end of a period of, say twenty-four years, the total charge to income from these latter items would be nearly $120,000 annually, making an average for the 24-year period in the neighborhood of half that amount, or $60,000. This would leave an average net gain in income of $60,000 a year for this 24-year period, representing increase in income from capitalizing taxes, less increased depreciation and ad valorem taxes by reason of such capitalization, in both cases less federal income taxes. Therefore, the total income increment to such a company adopting this policy would be something like $1.5 million in aggregate increased income for this 24-year period.

What the Net Effect Is

WITH respect to increased rate base, this should aggregate about $5.8 million by the end of this twenty-four years, less 30 per cent thereof for accumulated additional depreciation taken at an assumed rate of 2.5 per cent per annum and applied to the total amount for half this period. This would leave a net increase in rate base in the aggregate of around $4 million, on which a return of 6 per cent would amount to $240,000 annually. An average for the period would be half that figure, or $120,000, which is twice the amount of increased net income derived in the manner above indicated.

Thus, half of the company's right to additional earnings because of the increased rate base would be reflected in actual average increased earnings, whereas the other half thereof would be in the category of a potential right to higher earnings. The company could avail itself of this potential amount by applying it either in a rate increase application, or, defensively, in a proceeding to reduce its rates.

If we assume a realistic treatment of the subject, we would consider that the company benefits in actually increased earnings to the extent of the net amount of $60,000 per annum resulting from capitalization of taxes (less the offsetting charges indicated above), plus one-third of the earnings potential arising from the company's entitlement to greater earnings because of its higher rate base. The aggregate average annual increment to earnings would be about $80,000.

To translate this into assumed increased market values for the company's common stockholders, it might be assumed that the

rate of capitalization of common stock earnings over this 24-year period, would run at an average of thirteen times. On this basis the $80,000 of additional assumed earnings would create average additional values, throughout the 24-year period, of over $1 million. In addition to this continuing benefit to the stockholders, the company would benefit from higher prices for the stock whenever it sold additional shares within this period.

Assuming that two-thirds of estimated average expansion at the 8 per cent rate must be financed through increased capitalization (after first applying depreciation cash and other net internal funds), it would be necessary for the company, in order to maintain its assumed 35 per cent common stock equity ratio, and continue a dividend pay-out approximating the present average for the industry, to sell on an annual average, about $2.5 million of additional common stock. This figure, like the 8 per cent expansion, is not compounded, and therefore reflects a gradual slowdown in the effective percentage of increase over the period.

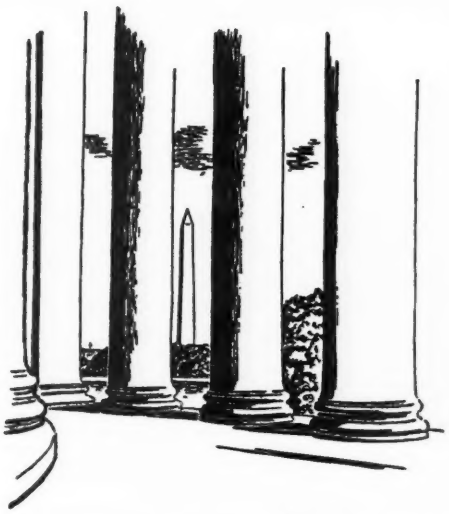
If the company is assumed to earn about 12 per cent of its book value of common stock equity, this would amount to about $16.8 million, in relation to which increased earnings of $80,000 would represent about one-half of one per cent. However, assuming an 8 per cent increase in common stock earnings over the 24-year period, also uncompounded, these earnings would just about double the above figure on the average for this entire period. This could make the increased earnings one-fourth per cent of one per cent of such average total earnings, as so increased. On this basis the company should gain something like $6.20 million a year on its average common stock financing, because of additional earnings from capitalization of taxes. For twenty-four years, the total gain from this source would aggregate about $150,000.

Review of Benefits

To summarize, therefore, in the example given it appears that over a period of about a quarter-century, adoption of a policy of capitalizing taxes during construction to what might be considered as a minimum extent, should create average increased values for common stockholders of the electric utility used in the above illustration, of over $1 million, which average increase would continue for the entire twenty-four years. In addition there would be a gain to the company itself, in the form of increased prices received by it upon future common stock financing over this period of another $150,000, making total reasonable minimum economic benefits to the company and its stockholders in the neighborhood of $1,150,000 for the period covered, by reason of a capitalization of a minimum amount of taxes during construction. These total benefits divide into an annual advantage of nearly $50,000.

Methods of computing the benefits from capitalizing taxes during construction may differ and amounts will necessarily vary, between types of utility and individual companies, but the foregoing seems to indicate clearly that the benefits from adopting this policy should be sufficiently substantial to warrant this matter receiving full and careful consideration.

Washington and the Utilities



Regulatory Probe Resumes

THE House Subcommittee on Legislative Oversight resumed last month its investigation into the activities of federal regulatory agencies. There are indications, however, that the subcommittee is running out of both money and enthusiasm and will probably wind up its affairs some time in December. The House group expects to spend the rest of this month tying up loose ends from its earlier investigations of the Federal Communications Commission and Securities and Exchange Commission. It will then adjourn until after the November elections when it plans to look into the affairs of other federal regulatory agencies, including the Federal Power Commission, Interstate Commerce Commission, and Civil Aeronautics Board.

The September hearings have so far been confined to the affairs of Bernard Goldfine, New England textile manufacturer and friend of presidential assistant Sherman Adams. SEC officials have been asked for further explanations of the agency's handling of a suit against one of Goldfine's companies for failing to file required financial reports for six years. The subcommittee has questioned whether the SEC was vigorous enough in taking action against the company.

AFTER dispensing with Goldfine-SEC matters, the subcommittee renewed hearings into FCC's handling of two television station award cases, involving Channel 5 in Boston and Channel 10 in Miami. The U. S. circuit court of appeals for the District of Columbia sent these two cases back to the FCC for further consideration in the light of earlier revelations of influence before the subcommittee. Another channel award—Channel 4 in Pittsburgh—will also be investigated. A federal grand jury already has looked into this award, which subcommittee members say involves charges of improper pressures and "buying out" of competing applicants.

Not until November 11th will the subcommittee get around to the FPC. This suggests that there will be little time for serious inquiry into the operations of this agency or other regulatory agencies not already probed by the House investigators. Unless Congress chooses to revive the investigation next year, matters affecting

the FPC are not likely to get more than perfunctory attention. In view of bipartisan criticism of the subcommittee's methods, there is some question whether Congress will be willing to reconstitute the subcommittee when the 86th Congress reconvenes in January. Subcommittee Chairman Harris (Democrat, Arkansas), author of a controversial bill to relieve independent natural gas producers from federal regulation, is not thought to be anxious to conduct a searching probe into the practices of the FPC.

Atomic Development Program

THE administration will be faced next year with a positive long-range program for atomic power development recently outlined by two key members of the Joint Committee on Atomic Energy. Announcement of the program by Representative Durham (Democrat, North Carolina), who is presently chairman of the Joint Committee, and Senator Anderson (Democrat, New Mexico), who will head the committee next year, is further notice to the administration that the Joint Committee intends to play the leading rôle in determining future atomic development programs. The administration had little success this year in winning to its point of view a majority of the Joint Committee which virtually ignored presidential recommendations of essential points of the atomic energy program.

The tentative program outlined by Durham and Anderson is designed to provide economic atomic power in the United States by 1970. It calls for increased research and development and programmed design, construction, and improvement of diversified nuclear power plants. The program, which could run into billions of dollars, presently contemplates design studies during the next five to seven years of 21 reactor plants of many types and sizes. About half of the most promising designs would be carried through the construction stage.

"While the total capacity of plants to be built in this country is expected to amount to about one million electrical kilowatts, the purpose of the program is to develop information and not power per se," the Durham-Anderson statement said.

Under the program, the Atomic Energy Commission would continue to direct and finance the major portion of research and development projects. Design and construction of reactors would be carried out through an expanded and modified power demonstration program of privately owned "second generation" plants, and through government construction, by contracts with private industry or nonfederal power organizations, of advanced experimental plants.

Trinity River Project

CONGRESS, just prior to adjournment, passed a $1,118 million public works appropriation measure which includes some $43,512,000 for continued construction of the Trinity river project in California. The Interior Department, however, has been asked to stop work on the project until Congress gets a chance to vote on an administration-backed proposal for "partnership" construction of this unit of the Central Valley project.

In a somewhat unusual move, a majority of the members of the House Interior Affairs Committee formally requested Secretary of Interior Seaton to hold up expenditures for construction of Trinity dam. Identical requests were forwarded to the chairmen of the House and Senate Appropriations committees and the Bureau of the Budget. Seventeen members of the committee—fifteen Republicans and

two Democrats—asked Seaton not to request funds for the project next year "until such time as Congress has had ample opportunity to carefully consider and act on this legislation."

Lengthy hearings were held before the committee earlier this year on "partnership" legislation which would have permitted Pacific Gas and Electric Company to obtain an exclusive 50-year contract to develop the power potential of Trinity dam. The proposal has been bitterly opposed by Committee Chairman Clair Engle (Democrat, California), who has made an issue of it in his campaign for a Senate seat from California. Engle successfully blocked action on the proposal this year. However, the action of the seventeen committee members makes it almost certain that the "partnership" plan will be revived in the 86th Congress.

In addition to the funds for Trinity dam, the construction budget of the Bureau of Reclamation includes $67,349,000 for the Colorado river storage project, $10,651,000 of which is for Flaming Gorge dam. The Army Corps of Engineers received $813,887,500 for construction, maintenance, and planning money. For construction, $8 million was earmarked for the John Day dam on the Columbia river—$2 million less than requested by the administration; $13.5 million for The Dalles dam; $22.5 million for Ice Harbor dam; $2.4 million for Chief Joseph dam. The bill also provides $310,000 for preconstruction planning of Green Peter dam of the South Santiam river, and $500,000 for engineering studies of the proposed Bruces Eddy dam.

The Senate finally bowed to the wishes of the House and knocked out of the bill an Interior Department request for $196,000 to complete studies on the feasibility of a high dam at the Pleasant Valley site.

Co-ops Plan Legislative Campaign

Congress had barely gotten out of town when spokesmen for the National Rural Electric Co-operative Association, the national REA co-op lobby, announced plans for what they called a "legislative counterattack" in the new Congress that meets next January. Clyde T. Ellis, general manager of NRECA, described his organization's plans to 2,500 people at the Missouri Farmers Association's annual meeting in Columbia, Missouri. The counterattack is frankly aimed at privately owned utilities.

Ellis told the annual meeting that next year co-ops will ask for enabling laws which will permit REA co-ops, municipal utilities, and public power districts to federate and own generating plants and transmission lines. Legislation will also be sought that will give the co-ops the right to sue for triple damages under the antitrust laws when private utilities "conspire" to delay co-op electric plants, Ellis said. Congress will be asked to declare power transmission lines common carriers subject to regulation of their rates for transmitting electricity.

On the state level, the co-ops plan to seek laws prohibiting one utility from "pirating" another's customers. NRECA also wants public power district laws in every state similar to those in Nebraska, Oregon, and Washington. This program will be pushed, said Ellis, "by helping our friends in public office and—so as not to help our enemies—by distributing to our members the voting records of state legislators, Congressmen, Senators, commissioners of state and federal agencies, governors, and Presidents."

Proponents of public power, including NRECA, are apparently unhappy about

the way things are going in Nebraska—an all-public power state. The state's power leaders were recently taken to task by Nebraska Governor Victor Anderson at a meeting of the Nebraska Rural Electric Association. Anderson was critical of rival power interests fighting out their differences in court. He suggested that they sit down around a table instead and work out their problems themselves. He warned that there is "nothing the private power interests want more than to have Nebraska people get so disgusted with public power that they will kick it out."

Joe Jenness, assistant manager of NRECA, told the Nebraska meeting that the rural electric program is in "desperate circumstances." Jenness complained that the state's present representatives in Congress are not endowed with the vision of the late Senator George Norris, who led the development of rural electric and public power. While some votes of the Nebraska congressional delegation support the rural electric program, their votes on related issues "indicate they do not understand the entire program," Jenness said.

TVA under Fire

CRITICISM of TVA and its policies has come from a variety of sources in recent weeks. A perennial TVA critic, the U. S. Chamber of Commerce, has released a new study of the authority which ends with a recommendation that private and local interests and state and local governments be authorized and encouraged to buy and operate the agency's power facilities. In the meantime, says the study, the Army Corps of Engineers should operate the TVA dams and the Federal Power Commission should regulate TVA electricity, establishing new rates to cover all hidden costs. The study also calls for elimination of the sole-supplier clause in TVA power contracts.

Noting that TVA claims an average "return" of about 4 per cent annually on its power investment, the report states:

> Extremely partisan supporters of the agency point to the "returns" figure and to payments to the Treasury as evidence: First, that TVA is self-supporting; second, that it makes a payment to the federal government for amortization of the investment; third, that, in response to the charge that TVA pays no taxes, the amounts are payments to the federal government which is what taxes are; and, fourth, that in response to the charge that TVA pays no interest, the 4 per cent is interest. It should be obvious that the return can in propriety be counted only once and cannot in turn be called profit, taxes, interest, and amortization.

FROM another quarter has come criticism that TVA's practice of acting as its own prime contractor on projects is "wasteful, inefficient handling of the taxpayers' money." The charge comes from the *Constructor,* trade journal of the construction industry, which called for "a concerted effort by the entire construction industry to establish the contract method of construction by TVA and end the nation's largest publicly financed do-it-yourself construction system which mocks the basic principle of the industry."

To a large extent, TVA uses what the construction industry calls the "force account" or "day labor" method, employing its own work forces and assuming all responsibilities of supervision and purchase of materials and equipment. *Constructor* claims this method "has been thoroughly discredited many times in all levels of government."

Telephone and Telegraph

Metered Telephone Rates

METERED telephone rates for everyone, like unit rates for water, gas, and electricity, were favored by George R. Perrine, chairman of the Illinois Commerce Commission, in an address to the American Bar Association's Section of Public Utility Law, meeting in Los Angeles on August 26th. (Editor's note: Full text of Chairman Perrine's address will be published along with other papers delivered before the Public Utility Law Section, in a forthcoming issue of PUBLIC UTILITIES FORTNIGHTLY, according to annual practice.)

Perrine said he proposed that the metered rates be substituted for flat monthly rates which allow unlimited calls in the area of the exchange. Other utilities, he said, recognized at an early date that services should be upon a metered basis so that each customer pays for the amount used. In most cases, there is a minimum charge which entitles the customer to a certain amount of service, Perrine said.

"In the telephone situation, it has been said . . . that the rates would be much larger than continuing the flat-rate type of schedule," he stated. "However, I think that line of thought and argument was advanced at the time when most calls were handled by operators and before dialization. . . . it could possibly be that by going to a unit basis . . . the telephone company might be able to decrease the unit rate if they continue to develop greater use of the telephone."

"Foreign Attachment" Case

THE telephone industry is faced with more opposition to its traditional rule against "foreign attachments." This is the policy of many years' standing, whereby the Bell system and independents have reserved the right to remove wires or other objects physically attached to telephone lines or equipment by the subscriber or persons acting for the subscriber. The "foreign attachment" rule was breached somewhat several years ago when the FCC ruled in favor of the so-called "Hush-a-phone," an acoustical appliance commercially distributed, which is supposed to make telephone conversation more confidential. The FCC's decision in favor of Hush-a-phone and similar business appliances was upheld by the federal courts.

Another step was recently taken for further weakening the foreign attachment rule by the manufacturing of a so-called "microphone control unit." The Radio Telephone Research Group, Inc., of Norwood, Massachusetts, filed with the FCC a complaint charging the Bell system with discrimination in unlawfully prohibiting

the use of the "microphone control unit" which that company makes and sells. This unit permits a switchboard operator to hold an incoming telephone call while using her headset microphone for paging or speaking over another system.

FCC "Acquisition" Regulation

THE United States Independent Telephone Association, which is the national association of the independent telephone companies, is fighting a proposed FCC rule on so-called acquisition proceedings. Under the proposed rule any party opposed to an application by one telephone company to acquire the property of another telephone company would have to file a statement showing that the proposed transaction was not in the public interest. The FCC invited comment by interested parties. The Bell system is in favor of the proposal, claiming it would speed up acquisition proceedings in the public interest.

But the USITA points out that the law now gives the right of hearing to the USITA and to state telephone associations and to individual companies interested in any acquisition proceeding before the FCC. Since these parties have such rights by law, the USITA claims that the FCC has no authority to require a statement of reasons in advance when requesting acquisition hearings. USITA has also asked the FCC for sixty days' notice (as compared with a commission proposal for forty days' notice) to parties who might be interested in telephone acquisition cases.

Private Coin Phones Vanishing in Chicago

ILLINOIS BELL TELEPHONE COMPANY has taken steps to discontinue the private coin-box telephone—a type of service that made its bow at the turn of the century. Only 1,200 Illinois Bell residential and business customers—out of a total of one million—now use the coin-box telephone, in which a nickel is deposited for each call. A nickel, of course, no longer pays for a local call. That means the subscriber must pay each month an amount additional to the nickels deposited in the coin box.

The company filed a tariff with the Illinois Commerce Commission to sound the death knell to this relic of a bygone era. The tariff explained that customers will have ninety days from September 29th to make a change. The affected customers will be offered the more flexible measured service used by all other Chicago subscribers at a cost that will be the same or less than that which they now pay for the same number of calls.

The change will be made at no cost to the "nickel-in-the-slot" customers. There will be no charge either if the subscribers want to move the telephone to a new location or install extensions if these are ordered at the time of service change in residences. The customers may keep their present numbers.

There were only 1,322,000 telephones in the United States when the coin boxes made their bow.

THE "nickel-in-the-slot" telephones enjoyed great popularity when they were the most economical service, the company explained. They have dwindled rapidly since the end of the war as subscribers switched to the more efficient and generally lower-priced measured service.

These telephones were used in only nine cities of the country. Except for Chicago none have been in service elsewhere since Cincinnati dropped them ten years ago.

Special equipment needed to handle

these telephones has posed mechanical and service problems, the company said. Some exchanges serving as many as 50,000 customers with modern equipment have as few as three coin-box customers.

New REA Telephone Loan Chief

REA Administrator Hamil has announced appointment of Norman H. McFarlin as Assistant REA Administrator in charge of the REA telephone program. He assumed office on September 8th, filling a vacancy which has existed for some time. The post has not been really occupied since the retirement in March, 1957, of the well-known "Jack" O'Shaughnessy, who passed away on July 28, 1958, although there was a brief interim appointment.

McFarlin has for the last eleven years served consecutively as secretary, vice president, and general manager of the Montezuma Mutual Telephone Company, Montezuma, Iowa. Prior to that, he practiced law in the firm of McFarlin & McFarlin in Montezuma. He is a member of the Iowa Independent Telephone Association.

Born in 1918, he received a BA degree from Grinnell College in 1939 and an LLB degree from the University of Iowa in 1947. He served in the Air Force during World War II.

Sharing the Excise

THE Joint Federal-State Action Committee recently approved a proposal to make available to the states 40 per cent of the federal tax on local telephone bills for vocational education and sewage treatment construction.

Under the proposal, which Congress will be asked to consider next year, federal tax law would be amended to provide:

A tax credit to each state of 3 per cent of the federal tax of 10 per cent collected within its borders.

Authority for the Treasury to distribute the revenue equivalent of an additional 1 per cent of the 10 per cent federal tax to the poorer states.

Secretary of the Treasury Robert B. Anderson and Governor Lane Dwinell of New Hampshire unveiled the new proposal at the conclusion of a day of closed conferences. They are cochairmen of the committee, recommended by President Eisenhower in a speech to the Governors' Conference at Williamsburg, Virginia, to devise ways of shifting functions of a local character from the federal government back to the states.

THE proposal, which Anderson said has administration endorsement, is a sharp change from the bill President Eisenhower proposed to the last session of Congress.

That measure, which got little support, proposed a tax credit of 4 per cent of the 10 per cent federal tax to every state, to enable them to take over vocational education and waste treatment construction programs for which the federal government now provides grants.

In many states, the 4 per cent credit received would fall far short of the amount they now get in federal grants.

Under the new version, the richer states would get only the 3 per cent tax credit, and the poor ones would get this, plus a distribution of the 1 per cent collected from all over the country.

Financial News and Comment

By OWEN ELY

Expansion Continues in Natural Gas Industry

DESPITE the many difficulties which the natural gas industry has encountered in the past two years with Congress and the courts, the great expansion program of the postwar period had gathered so much momentum that growth has been checked only moderately. The American Gas Association forecasts construction expenditures this year of about $1,870 million compared with $1,770 million last year; however, a slight decline to $1,736 million is predicted for next year. While gas financing was smaller in the first seven months of 1958 than in the two previous years, this trend was reversed in August when financing amounted to $229 million. Also a substantial proportion of pending utility financing is for gas utility companies—so that it remains possible that the total amount for the year will be more in line with the increased construction program. Because of the rôle of temporary bank loans, it is difficult to correlate the two factors, and the rise in money rates may have delayed some financing.

One major project recently received a "green light" from the Federal Power Commission—Transcontinental Gas Pipe Line's $167 million expansion program, which includes increased deliveries of gas to the New York and Philadelphia areas, was approved. Another large project is now under way following completion of the long-delayed financing of the Houston Corporation of Florida. This 1,500-mile pipeline system will bring gas from Texas and Louisiana coastal fields to serve the state of Florida. The project is expected to cost some $185 million, of which over $52 million was recently raised through successful sale of debentures and common stock, with the balance of funds obtained privately.

THE public offering followed the highly successful method used in financing Trans-Canada Pipe Lines, West Coast Transmission, Quebec Natural Gas, and several other Canadian companies. The issue was in the form of units consisting of a $100 5 per cent subordinated debenture and 5 shares of common stock, the unit being retailed at $150. A "when issued" market for the common stock has

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developed (currently around 16½) despite the fact that, as in the case of the Canadian securities, real earning power for the shares will not develop for some time.

INITIAL capacity of the pipeline will be about 275 million cubic feet of gas daily, about 55 per cent of which will be transported for the accounts of Florida Power & Light Company and Florida Power Corporation. These utilities have both purchased gas "in place" directly from producers in the Texas-Louisiana fields, so that the pipeline will be merely a carrier. It is understood that the two utilities will use the gas principally for boiler fuel, although Florida Power & Light already has a small amount of gas sales. The Houston Corporation system, which is designed for future expansion to about 410 million cubic feet daily, will undertake distribution in various Florida areas, having acquired existing gas properties in a number of communities.

In addition to the famous Memphis case which it is hoped will be decided this fall, the U. S. Supreme Court will probably now face another important issue over the so-called CATCO offshore Louisiana gas. This case involves the sale of gas by four large producers—Continental, Atlantic, Tidewater, and Cities Service Production—to Tennessee Gas Transmission. Certain distributor customers and interveners objected to the fact that the FPC, in issuing gas sales certificates to producers, failed to set the initial price at which the gas was to be sold. Meanwhile, the gas is being delivered under existing contracts and it is estimated that Tennessee will receive 150 million cubic feet of gas daily in 1959. The issue here would seem to be somewhat similar to that in the sale of gas from Jack and Wise counties for use in the Chicago area, referred to later.

Transwestern Pipeline, the proposed $190 million pipeline from Texas to California with a capacity of about 300 million cubic feet, has asked the FPC to hold early hearings since the California Utilities Commission is currently completing hearings on the facilities which Pacific Lighting Gas Supply will build to take this gas at the California-Arizona border.

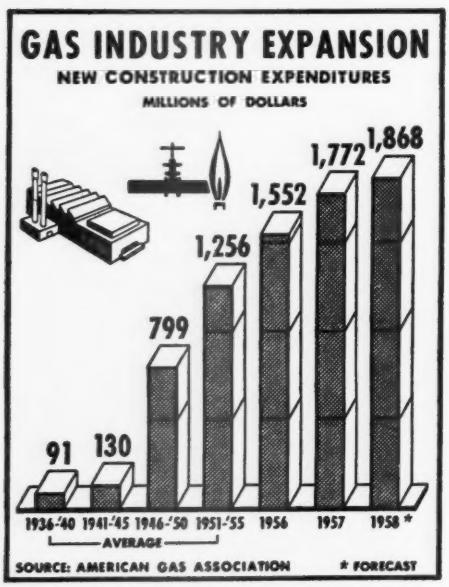
PEOPLES GAS of Chicago announced early in August that it was calling off its $76 million project to bring an additional 485 million cubic feet of gas daily from Colorado Interstate's terminus at Beatrice, Nebraska, to Illinois. Cancellation was attributed to rate problems arising from the Memphis decision. It is conjectured that abandonment of this plan may give new impetus to the rival proposal of Midwestern Gas Transmission (subsidiary of Tennessee Gas) to build a $103 million pipeline from Tennessee to the Canadian border—though there has been little news for some time as to the status of this proposal.

Thus the confused situation in the Middle West still prevails, with a heavy backlog of demand for gas. Northern Illinois Gas has a backlog of applications for heating service to single family residential units of 75,000; and some 2,500 new homes a month are being built in the service area, with the type of heating plant depending on the ability to obtain an assured supply of gas.

The FPC has given some recognition to these unsatisfied and rapidly increasing demands for gas in the Chicago area, which have been aggravated by the failure of the Herscher storage field to function at more than about 28 per cent of anticipated capacity. The commission refused to place an initial price condition on a certificate authorizing Texas producers to supply a large amount of gas from Jack and Wise counties (Texas) to

Natural Gas Pipeline Company of America (Peoples Gas). The FPC action was upheld by an appellate court, and the decision was hailed by the magazine *Gas* as "a landmark case (giving) FPC great discretion in attaching conditions or refusing to place conditions upon certificates of public convenience and necessity." Interveners had objected to the initial price of about 14 cents per Mcf because the highest prevailing price was 11 cents in this area. The court upheld the commission's right to get the movement of gas under way promptly, with the question of rates deferred to future procedure. In other words, "the commission cannot be required to convert every certificate proceeding into a rate proceeding."

REGARDING the still unsolved problem faced by the Federal Power Commission of devising a formula for the regulation of gas prices in the field,



THE gas utility and pipeline industry is expanding at the fastest pace in its history, with new all-time high construction expenditures of nearly $1.9 billion forecast for 1958. Outlays of nearly $1.8 billion in 1957 topped the previous year's construction expenditures by 14 percent and were almost 20 times greater than the industry's average annual building costs prior to World War II.

Vice Chairman Frederick Stueck recently made the following statement at the American Bar Association convention:

> . . . solution of the price problem faced by the commission, as price regulator, is not simple. But I suggest that regulations required to make the problem simple enough for administration can be achieved. General rules, standard criteria, accepted indicia of value, and approved practices must be established and applied. Gas is a compound substance which may be graded to allow for most variations in its character and quality. Delivery terms may be standardized with industry consensus; compensating factors for varying conditions of drilling and discovery may be developed . . . price increases can be encompassed, though not without hard labor and extensive effort by commission and company personnel, within the rate increase provisions of the Natural Gas Act.

How are the wholesale gas utilities faring in their efforts to obtain customer consent to rate increases, so as to permit legal filings of increased rates with the FPC regardless of the Supreme Court decision in the Memphis case? Usually they are able to line up a high percentage of customers, but a few "hold outs" remain. Southern Natural Gas, for example, in a motion filed with the FPC August 22nd, reported that it expects to file a new rate increase about May 1, 1959, to go into effect about November 1st; and 90 of its 96 customers have already agreed in writing to the proposed increase.

THE gas industry is continuing with many local intrastate projects, since these are not involved in the Memphis case, and later could be linked into major systems after the regulatory air has cleared.

This appears to be the case in the Carolinas, where three local companies, North Carolina Natural Gas, Peoples Natural Gas of South Carolina, and Tidewater Natural Gas Company, are building about 900 miles of feeder lines which will tap the Transcontinental system. According to Gene Smith, utility writer for *The New York Times,* these local projects may very well develop later into an interconnected network along the Atlantic coast into Florida.

In the retailing field, the AGA reports marked progress with the campaign for gas air conditioning. Shipments of year-round residential gas air conditioners are expected to exceed 7,000 units (based on shipments of nearly half that number in the first half) compared with 2,467 last year. The marked upturn in these sales was attributed to increased promotional efforts by gas utilities, to improvements in design and operation of the units, and to a substantial reduction in unit prices. Manufacturers have pointed out that gas air-conditioning units now on the market

AUGUST UTILITY FINANCING

PUBLIC OFFERINGS OF ELECTRIC AND GAS UTILITY SECURITIES

Date	*Amount (Mill.)*	*Description*	*Price To Public*	*Under-writing Spread*	*Offer-ing Yield*	*Aver. Yield For Securities of Similar Quality*	*Moody Rating*	*Success Of Offer-ing*
		Bonds and Debentures						
8/14	$45.0	Cons. Natural Gas Deb. (s.f.) 4⅛s 1983	101.14	.98C	4.30%	3.95%	Aaa	a
8/19	53.0	Houston Corp. 5% Sub. Deb. 1968 and Common Stock*	150.00	6.00N	—	—	—	a
8/21	60.0	Public Service E. & G. 4⅛s 1988	102.05	.88C	4.50	4.04	Aa	c
8/26	50.0	Southern Calif. Edison 1st (s.f.) 4⅛s 1983	101.11	.88C	4.55	4.11	Aa	a
		Common Stock—Offered to Stockholders					*Earns.-Price Ratio*	
7/29	.6	Michigan Gas Utilities	17.00	N	5.89		8.0%	f
8/19	8.2	Houston Corp. Common	10.00	N	—		—	h
8/19	5.8	Houston Corp. Class A Shares	10.00	N	—		—	i
		Common Stock—Offered to Public						
	.3	Pike Natural Gas	3.50	N	—		—	g

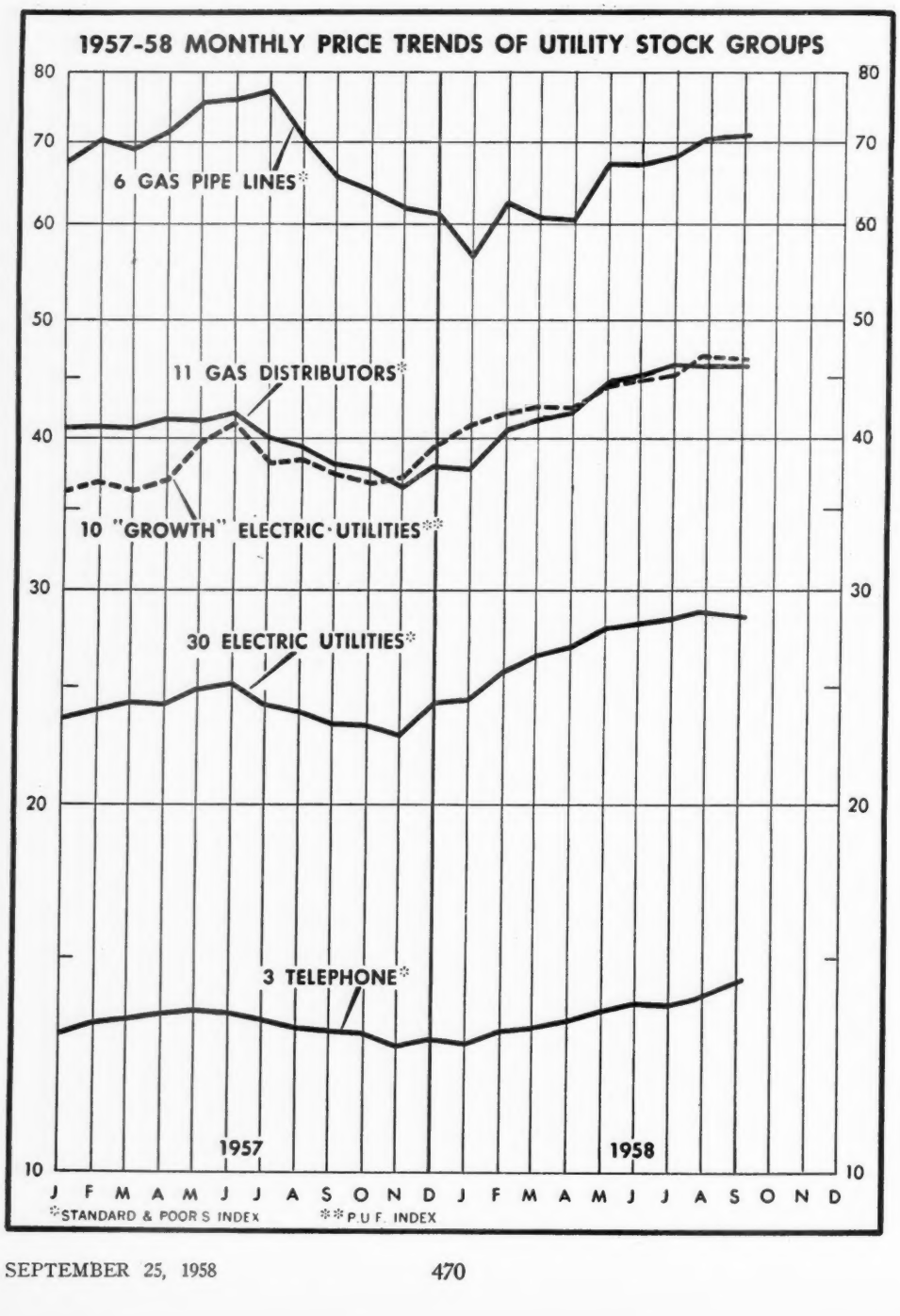
*Sold in units consisting of $100 debenture and 5 shares of common stock. (Not transferrable separately prior to August 15, 1959, except at the election of the company.)

C—Competitive. N—Negotiated. a—Reported the issue was well received. c—Reported the issue sold rather slowly. f—Offered to stockholders on 1-for-10 basis; 93 per cent subscribed. g—All shares sold to Ohio investors. h—Offered to stockholders on approximately 1.5-for-1 basis. i—Rights offered to one holder.

NEW MONEY OFFERINGS IN AUGUST, 1958

Electric Companies	
Bonds—Sold to Public	$110,000,000
—Sold Privately	2,000,000
	$112,000,000
Gas Companies	
Bonds—Sold to Public	$ 97,110,720
—Sold Privately	117,100,000
Common—Sold to Public	259,000
—Offered to Stockholders	14,500,415
	$228,970,135
Total—Electric and Gas	$340,970,135

Source, Irving Trust Company


1957-58 MONTHLY PRICE TRENDS OF UTILITY STOCK GROUPS
80
70
60
50
40
30
20
10
6 GAS PIPE LINES*
11 GAS DISTRIBUTORS*
10 "GROWTH" ELECTRIC UTILITIES**
30 ELECTRIC UTILITIES*
3 TELEPHONE*
1957
1958
J F M A M J J A S O N D J F M A M J J A S O N D
*STANDARD & POOR'S INDEX
**P.U.F. INDEX

have proved virtually trouble-free. They range in capacity from three tons for domestic use to several thousand tons for commercial and industrial installations.

THE AGA, in connection with the issuance of its annual statistical data, recently presented some long-range projections for the industry which we summarize as follows:

	1957	*1970*	*Per Cent Increase*
Gas Customers (millions)	30.5	43.8	44%
Gas Sales—Residential (billions of therms) ...	26	57	119
Gas Sales—Total (billions of therms) ...	77	154	100
Revenues (billions)	$4.1	$10.7	161
Miles of Main (thousands)	549	861	57
Gross Plant Value	$16.7	$48.4	190

It is interesting to compare this 13-year forecast with the actual increase for the thirteen previous years. Total gas sales approximated 25 billion therms in 1944 and increased to over 77 billion in 1957—about tripling in amount. However, the projection for the next twelve years indicates that sales will merely double during this period. The fact that revenues are expected to increase 161 per cent reflects (1) the increasing proportion of residential and commercial sales as compared with sales of lower-priced industrial gas; and (2) some adjustment for a continued increase in the field cost of gas, as reflected in rising wholesale and retail rates.

While there has been some switching from gas to coal in the South as the result of higher field costs, FPC statistics for the twelve months ended June 30, 1958, as compared with the previous 12-month period, show an increase of 6.4 per cent in the use of gas for fuel in electric utility power plants in the United States; consumption of coal declined 2.8 per cent, and fuel oil 8.9 per cent. While the price of gas has been rising, it still has a good competitive advantage over coal and oil in many areas. U. S. average figures for the cost of one million Btu generated with the use of different fuels was recently reported by the Edison Electric Institute to have been as follows during 1957:

Gas	20.2¢
Coal	27.5
Oil	44.2

Commonwealth Edison's Cash-Plus-Stock Dividend Plan

COMMONWEALTH EDISON'S letter to stockholders of September 2nd, signed by Chairman Willis Gale, announced an important change in dividend policy. The company will continue to pay a "base" quarterly cash dividend, which for the time being is 50 cents, and will supplement this with an annual stock dividend. The latter will reflect approximately the balance of undistributed earnings in excess of the present $2 rate. Formal action on a stock dividend of 2 per cent, to be payable later in the year, was expected September 12th.

In effect, this will make total dividends of slightly over $3 a share compared with latest interim earnings of $2.90 and anticipated earnings for the calendar year 1958 of about $3.25. *Pro forma* earnings for the twelve months ended June 30th, including the full annual amount of the rate increase which became effective June 18th, would approximate $3.56. Thus, unless increased expenses reduce this *pro forma* figure, it seems possible that the 1959 stock dividend might be larger.

The new plan is proposed because the management believes it to be adapted to the varying circumstances of different stockholders. The company does not plan to issue fractional shares, but methods will provide (through a bank) for cashing fractions of shares, or rounding frac-

tions up to full shares. As the letter stated, "Those who prefer a maximum of cash return should be able to realize an amount approaching our full per share earnings from year to year. Those who prefer capital appreciation should be able to accomplish their objective, in part, by retaining their dividend stock, the receipt of which, under present laws, will not be taxable income."

CHAIRMAN Gale expressed the hope that the new policy, through dividend flexibility, would make the stock attractive to more investors and thus increase the number of stockholders. (The popularity of the move was indicated by an immediate advance in the stock from 48⅞ to 54, though part of the gain was later lost.) He also pointed out that it would permit the company to retain and reinvest in the business a larger percentage of earnings than was retained under previous dividend policy—thus reducing, if not eliminating, the need for periodic offerings of new shares to help finance the construction program.

The new policy of regular annual stock dividends seems a substantial improvement over the practice of some other utilities in giving occasional stock dividends. (See footnotes on our table of Electric Utility Stocks listing five stock dividends paid since December, 1957.) Such dividends lose their effectiveness because they are either a "one-shot" affair, or so irregular that stockholders cannot count on them as regular income.

RICHARD ROSENTHAL, president of Citizens Utilities and chairman of Michigan Gas & Electric, has long advocated a stock dividend policy. Formerly, Citizens Utilities followed the Commonwealth Edison idea, paying part cash and part stock; later class A and B shares were issued, the former paying all stock and the latter all cash. Michigan Gas & Electric since 1952 has paid cash plus a regular 3 per cent stock dividend. Missouri Public Service, more recently, has also adopted a policy of making quarterly payments both in cash and stock, the current rate being 18 cents and one-half per cent in stock (making an annual rate of 72 cents plus 2 per cent in stock). It will be interesting to note whether other utility companies may decide to follow the lead of Commonwealth Edison and these smaller utilities.

DATA ON ELECTRIC UTILITY STOCKS

Annual Rev. (Mill.)			9/3/58 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1952-57	Price-Earn. Ratio	Div. Payout	Approx. Common Stock Equity
$284	S	American Elec. Power	42	$1.60	3.8%	$2.24Jy	5%	9%	18.8	71%	33%
50	O	Arizona Public Serv.	30	1.20	4.0	1.89Je	6	7	*15.9	63	27
11	O	Arkansas Mo. Power	21	1.00	4.8	1.42Je	7	2	14.8	70	32
32	S	Atlantic City Electric	36	1.40	3.9	1.80Jy	6	10	20.0	78	28
142	S	Baltimore Gas & Elec.	40	1.80	4.5	2.15Je	D4	6	18.6	84	43
7	O	Bangor Hydro-Electric ...	35	1.90	5.4	2.16Ma	D19	4	16.2	88	36
6	O	Black Hills P. & L.	27	1.44	5.3	2.11Ap	D6	3	12.8	68	30
104	S	Boston Edison	54	2.80	5.2	3.12De	D10	—	17.3	90	47
24	A	Calif. Elec. Power	17	.76	4.5	*1.01Je	D6	1	*16.8	75	28
23	O	Calif. Oreg. Power	33	1.60	4.8	1.91F	D16	2	17.3	84	35
8	O	Calif. Pac. Util.	30	1.60	5.3	2.31Je	—	3	13.0	69	30
67	S	Carolina P. & L.	31	1.32	4.3	1.99Jy	13	4	15.6	66	40
30	S	Cent. Hudson G. & E.	17	.80	4.7	1.18Je	18	6	14.4	68	31
23	O	Cent. Ill. E. & G.	37	1.60	4.3	2.51Je	7	11	14.7	64	36
37	S	Cent. Ill. Light	29	1.40	4.8	2.03Jy	5	9	14.3	69	34
53	S	Cent. Ill. P. S.	34	1.68	4.4	2.56Je	10	13	13.3	66	40

Annual Rev. (Mill.)		(Continued)	9/3/58 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1952-57	Price-Earn. Ratio	Div. Payout	Approx. Common Stock Equity
15	O	Cent. Louisiana Elec.	40	1.60	4.0	2.24Je	13	8	17.9	71	30
38	O	Cent. Maine Power	24	1.40	5.8	*1.81Jy	D1	5	*13.3	77	32
137	S	Cent. & South West	48	1.70	3.8	2.45Je	9	10	19.6	69	40
12	O	Cent. Vermont P. S.	18	1.00	5.6	*1.18Jy	18	2	*15.3	85	33
121	S	Cincinnati G. & E.	31	1.50	4.8	2.02Je	4	9	15.3	74	39
7	O	Citizens Util. "B"	21	1.00	4.8	1.23Je	6	7	17.1	81	40
119	S	Cleve. Elec. Illum.	41	1.60	3.9	2.59Je	5	11	15.8	62	50
5	O	Colo. Cent. Power	32	1.32	4.1	1.87Je	25	4	17.1	71	41
44	S	Columbus & S. O. E.	34	1.60	4.1	2.19Jy	D12	5	15.5	73	30
380	S	Commonwealth Ed.	49	2.00	4.1	2.95Jy	5	5	16.6	68	40
13	A	Community Pub. Ser.	30	1.30	4.3	1.98Je	7	6	15.2	66	45
75	O	Conn. Lt. & Pr.	22	1.10	5.0	*1.33Jy	20	5	*16.5	83	34
582	S	Consol. Edison	53	2.80	5.3	*3.64Je	14	6	*14.6	77	38
221	S	Consumers Power	52	2.40	4.6	3.23Jy	1	5	16.1	74	38
78	S	Dayton P. & L.	50	2.40	4.8	3.32Ma	2	2	15.0	72	38
49	S	Delaware P. & L.	54	2.00	3.7	2.81Je	3	12	19.0	71	30
251	S	Detroit Edison	40	2.00	5.0	2.37Jy	D6	11	16.9	84	44
136	A	Duke Power	39	1.40	3.6	2.30Je	14	15	17.0	61	47
99	S	Duquesne Light	40	2.00	5.0	2.66Je	10	4	15.0	75	34
32	O	East. Util. Assoc.	38	2.20	5.8	2.61Je	13	0	14.6	84	34
2	O	Edison Sault Elec.	17	.80	4.7	1.17Je	4	24	14.5	68	33
14	O	El Paso Elec.	27	1.00	3.7	1.50Jy	8	9	18.0	67	36
12	S	Empire Dist. Elec.	22	1.20	5.5	1.43Je	D10	3	15.4	84	32
52	S	Florida Power Corp.	77	2.00	2.6	3.46Je	30	13	22.3	58	34
131	S	Florida P. & L.	73	1.52	2.1	3.27Je	17	22	22.3	47	39
202	S	General Pub. Util.	45	2.12	4.7	*3.26Je	10	9	*13.8	65	41
7	O	Green Mt. Power	18	1.00	5.6	1.28Je	13	7	14.1	78	36
62	S	Gulf States Util.	45	1.80	4.0	2.16Je	D5	11	20.8	83	31
49	A	Hartford E. L.	63	3.00	4.8	*4.34Je	7	10	*14.5	69	41
24	O	Hawaiian Elec.	49	2.50	5.1	2.81Je	D16	12	17.3	89	36
87	S	Houston L. & P.	59	1.60	2.7	2.90Jy	11	11	20.3	55	42
28	S	Idaho Power	44	1.60	3.6	2.67Je	22	12	16.5	60	36
87	S	Illinois Power	32	1.50	4.7	2.02Jy	9	7	15.8	74	34
46	S	Indianapolis P. & L.	34	1.50	4.1	2.13Je	3	7	16.0	70	35
26	S	Interstate Power	17	.85	5.0	1.10Je	33	2	15.5	77	31
36	S	Iowa Elec. L. & P.	34	1.60	4.1	2.09Jy	6	5	16.3	77	38
41	S	Iowa-Ill. G. & E.	35	1.80c	5.1	2.52Je	—	3	13.9	71	38
39	S	Iowa Power & Lt.	33	1.60	4.8	1.99Je	D4	4	16.6	80	30
34	O	Iowa Pub. Serv.	17	.80	4.7	1.15Je	8	8	14.8	69	35
14	O	Iowa South. Util.	25	1.28	5.1	1.96Jy	14	5	12.7	65	40
61	S	Kansas City P. & L.	43	2.00	4.6	3.07Jy	11	7	14.0	65	37
32	S	Kansas G. & E.	35	1.40	4.0	2.45Jy	8	13	14.3	57	30
48	S	Kansas Pr. & Lt.	27	1.30	4.8	1.97Je	D6	7	13.7	66	31
39	O	Kentucky Util.	32	1.40	4.4	2.21Je	6	3	14.5	68	36
7	O	Lake Superior D. P.	24	1.20	5.0	1.61Je	—	3	14.9	75	39
110	S	Long Island Lighting	26	1.20	4.6	1.60Je	12	5	16.3	75	34
56	S	Louisville G. & E.	33	1.20	3.6	2.17Je	30	3	15.2	58	41
10	O	Madison G. & E.	49	1.80	3.7	3.55Je	D17	11	13.8	51	45
5	A	Maine Pub. Service	20	1.16	5.8	1.42Je	—	7	14.1	82	37
6	O	Michigan G. & E.	56	1.60	2.9	4.48Je	11	8	12.5	36	40
172	S	Middle South Util.	42	1.80	4.3	2.56Jy	6	6	16.4	70	35
30	S	Minnesota P. & L.	32	1.60	5.0	2.43Jy	3	11	13.2	66	33
3	O	Miss. Valley P. S.	29	1.40	4.8	2.09Jy	D2	3	13.9	67	32
13	A	Missouri Pub. Serv.	16	.72f	4.5	1.01Jy	4	9	15.8	71	29
7	O	Missouri Util.	25	1.36	5.4	1.68Je	D10	3	14.9	81	33
44	S	Montana Power	55	2.00	3.6	*3.80Ap	NC	8	*14.5	53	39
159	S	New England Elec.	18	1.00	5.6	1.17Je	—	0	15.4	85	34
46	O	New England G. & E.	19	1.05	5.5	1.52Jy	8	5	12.5	69	41
49	O	New Orleans P. S.	44	2.25	5.1	3.21Jy	17	0	13.7	70	39
3	O	Newport Electric	19	1.10	5.8	1.31Jy	13	—	14.5	84	31
89	S	N. Y. State E. & G.	47	2.00	4.3	*3.55Jy	18	6	*13.2	56	37
255	S	Niagara Mohawk Pr.	36	1.80	5.0	*2.09Je	10	—	*17.2	86	28
87	O	Northern Ind. P. S.	42	2.00	4.8	3.05Je	2	6	13.8	66	37
148	S	Nor. States Power	20	1.00	5.0	1.28Je	9	4	15.6	78	33
10	O	Northwestern P. S.	19	1.00	5.3	1.59Je	22	0	11.9	63	27
136	S	Ohio Edison	53	2.64	5.0	3.55Jy	D1	5	14.9	74	41

Annual Rev. (Mill.)		(Continued)	9/3/58 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1952-57	Price-Earn. Ratio	Div. Payout	Approx. Common Stock Equity
50	S	Oklahoma G. & E.	49	1.90	3.9	2.78Je	15	5	17.6	68	30
21	O	Orange & Rockland Utils.	20	.90	4.5	*1.12Ma	NC	15	*17.9	80	26
16	O	Otter Tail Power	30	1.60	5.3	2.25Jy	4	1	13.3	71	29
501	S	Pacific G. & E.	57	2.40	4.2	3.67Je	11	10	15.5	65	34
50	O	Pacific P. & L.	35	1.60	4.6	*2.21My	—	5	*15.8	72	28
129	S	Penn Power & Lt.	48	2.40	5.0	3.11Je	D6	9	15.4	77	30
236	S	Phila. Elec.	42	2.00	4.8	*2.70Je	10	4	*15.6	74	39
36	O	Portland Gen. Elec.	25	1.20	4.8	1.67Jy	—	8	15.0	72	37
69	S	Potomac Elec. Pr.	24	1.20	5.0	*1.52Je	D5	3	*15.8	79	32
91	S	Pub. Serv. of Colo.	45	1.80	4.0	2.54Je	D4	7	17.8	71	36
322	S	Pub. Serv. E. & G.	34	1.80	5.3	2.25Je	9	3	15.1	80	34
79	S	Pub. Serv. of Ind.	41	2.00	4.9	2.79Jy	6	3	14.7	72	38
32	O	Pub. Serv. of N. H.	18	1.00	5.6	1.26Jy	D14	6	14.3	79	36
13	O	Pub. Serv. of N. M.	21	.80g	3.8	1.23Je	10	8	17.1	65	35
27	S	Puget Sound P. & L.	29	1.36	4.7	*1.89Je	8	16	*15.3	72	50
60	S	Rochester G. & E.	35	1.60	4.6	2.28Je	—	2	15.3	70	32
8	S	St. Joseph L. & P.	28	1.50	5.4	1.96Je	D1	8	14.3	76	32
54	S	San Diego G. & E.	23	.96	4.2	1.32Je	D6	D	17.4	73	36
10	O	Savannah E. P.	25	1.00	4.0	1.53Je	29	25	16.3	65	30
10	O	Sierra Pacific Pr.	28	1.40	5.0	1.90Jy	D5	12	14.7	74	30
217	S	So. Calif. Edison	54	2.40	4.4	3.37Je	8	D	16.0	71	33
46	S	So. Carolina E. & G.	29	1.20	4.1	1.75Je	24	15	16.6	70	36
7	O	Southern Colo. Pr.	17	.80	4.7	1.41My	7	8	12.1	57	38
255	S	Southern Company	31	1.20	3.9	1.73Jy	11	8	17.9	69	32
19	S	So. Indiana G. & E.	34	1.60	4.7	2.44Jy	13	2	13.9	65	37
7	O	So. Nevada Power	21	1.00	4.8	1.32Jy	D18	9	15.9	76	40
1	O	Southern Utah Power	20	1.00	5.0	1.36Ap	D12	0	14.7	73	39
3	O	Southwestern E. S.	28	1.24	4.4	1.85My	13	3	15.1	67	28
42	S	Southwestern P. S.	35	1.48	4.2	1.75Je	—	5	20.0	85	35
30	A	Tampa Electric	38	1.20	3.2	1.67Je	D2	11	22.8	72	35
155	S	Texas Utilities	53	1.60	3.0	2.64Jy	8	13	20.1	61	40
42	S	Toledo Edison	15	.70	4.7	1.03Je	2	—	14.6	68	31
16	O	Tucson G. E. L. & P.	42	1.40	3.3	**2.44Je	14	15	17.2	57	35
129	S	Union Elec. of Mo.	30	1.52	5.1	1.74Ma	7	7	17.2	90	32
36	O	United Illuminating	27	1.30	4.8	1.54Je	D6	2	17.5	84	48
6	O	Upper Peninsula Pr.	29	1.60	5.5	1.53Je	D26	8	19.0	105	31
43	S	Utah Power & Light	29	1.20	4.1	1.78Je	—	8	16.3	67	42
130	S	Virginia E. & P.	31	1.00	3.2	1.61Jy	14	15	19.3	62	37
31	S	Wash. Water Power	39	2.00	5.1	*2.42Jy	—	9	*16.1	83	36
140	S	West Penn Elec.	32	1.50	4.7	2.21Jy	4	6	14.5	68	32
77	O	West Penn Power	52	2.40	4.6	3.35Ma	8	6	15.6	72	36
12	O	Western Lt. & Tel.	37	2.00	5.4	2.79Je	D5	7	13.3	72	38
28	O	Western Mass. Cos.	44	2.20	5.0	3.25Jy	4	8	13.5	68	49
114	S	Wisc. Elec. Pr. (Cons.)	34	1.60	4.7	2.21Je	D9	0	15.4	72	36
43	O	Wisconsin P. & L.	29	1.36	4.7	1.92Je	D1	4	15.1	71	40
40	S	Wisconsin P. S.	24	1.20	5.0	1.70Je	D8	5	14.1	70	38
		Averages			4.6%		4%	7%	15.6	72%	
		Foreign Companies									
215	S	Amer. & Foreign Pr.	17	$1.00	5.9%	2.10Ma	5%	0%	8.1	48%	44%
170	A	Brazilian Traction	7	.53a	7.6	1.52De	D30	0	4.6	35	75
75	A	British Col. Pr.	44	1.40	3.2	2.33De	—	15	18.9	60	28
18	A	Gatineau Power	37	1.50	4.1	2.39De	5	10	15.5	63	33
42	O	Mexican L. & P.	14	1.00b	7.1	1.96De	17	24	7.1	51	46
14	A	Quebec Power	35	1.40	4.0	2.17De	8	14	16.1	65	53
63	A	Shawinigan Water & Pr.	30	.68	2.3	1.48De	5	26	20.3	46	37

*Deferred taxes resulting from liberalized depreciation are not normalized. If they had been normalized the price-earnings ratio would be higher. **On average shares. D—Decrease. NC—Not comparable. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. a—Also 5 per cent stock dividend December 27, 1957. b—Also 5 per cent stock dividend May 1, 1958. c—Also 5 per cent stock dividend March 10, 1958. f—Also stock dividend of one-half per cent quarterly. g—Also 5 per cent stock dividend July 1, 1958.

What Others Think

Using Engineers Effectively in Public Work

PUBLIC work embraces a tremendous field. The agencies engaged in that work are found in every level of government—federal, state, county, city, village, and town. The hand and mind of the engineer are reflected in the work of every agency in every level of government.

To cite a few of those works may remind us of their extent. They include highways, which crisscross our nation, by land, by water, and in the air; public buildings, from many of the hospitals where children are born, to the schools where they are educated; the institutions for care of the few who miss the path; the halls of government in city, state, and nation; and finally the structures used by those assigned to the defense of the nation and its government under which we live and prosper.

Industry can be no stronger than the government under which it grows and lives. That government must, and does, employ the engineer and the scientist—in great numbers—as an employee, as a contractor, and as a consultant. Under world conditions as we find them today, those engineers and those scientists had better be good. Neither should much of their efforts be frittered away on routines below their level of capability.

The effective use of engineers in public work differs little from the effective use of engineers in any other kind of work. Various phases of public work parallel closely nearly all phases of work in private practice and in industry.

WORK in municipal and state government parallels closely that of the federal government. It consists primarily of a clear initial concept of the job or problem—economic studies of alternative solutions—a decision as to the course to be followed — planning — construction — operation—and maintenance. The larger the organization the more difficult are the problems of co-ordination, direction, and supervision, whether in industry or government. Likewise, both are controlled to a very considerable extent by finances and economics.

In both industry and government satisfactory accomplishment is the normal expectation and a lesser performance, either imagined or real, is likely to result in a change in responsibility. In both industry and government we have minority stockholders, whose principal business appears at times to be that of expressing dissatisfaction with the performance of those who are carrying the responsibility. In government the taxpayer and voter is the stockholder. His dividend is in the form of services received. Constructive criticism is often helpful. Unfounded

criticism tends to discourage engineers and scientists from entering or remaining in public service.

It is generally agreed that in many instances individuals with engineering training and background spend time in routine matters which could be handled by technicians.

As a broad statement of principle there can be no quarrel with the above conclusion, although it is equally true that almost any engineering problem involves a succession of routine computations or operations. To some extent, at least, the engineer must keep close watch over the progress of any new project which varies from the usual because his experience and training should enable him to form an early judgment as to whether or not the answer to a problem is developing in an orderly manner and is falling within the realm of reasonableness. If some peculiar results are developing, a review of principles and formulae is in order and if it appears that a wrong technique has been used, it can be corrected before a large expenditure of time has resulted.

It is increasingly apparent that engineering, as well as the other skilled professions, is becoming more and more specialized. Because of this fact most large engineering organizations are tending toward departmentalization. In many respects this is good, as it permits the placing of problems in the hands of the individuals best fitted to handle them.

However, many engineers in public service are in a rather peculiar position in that they are in frequent contact with the public and must satisfy not only their immediate employer, but must be able to demonstrate to many a dissatisfied person that the proposed solution to an aggravated problem is just and equitable. At times this appears to be impossible, but nevertheless a serious effort must be made. In numerous instances the solution goes beyond the limits of engineering and involves elements of diplomacy, law, public policy, organization policy, and simple equity. All of the above attributes must be developed by many engineers engaged in public work.

In those governmental departments where the engineering forces are relatively small in size and where the work load is variable, both in quantity and in subject matter, it is desirable and frequently necessary to train engineers to handle many types of problems. This method permits the most efficient utilization of available forces and insures that the work load may be handled as expeditiously as possible.

The training of such engineers involves a large expenditure of time and effort and often a good share of their capability is the result of experience gained in handling the problems assigned to them. Basic engineering training is a good starting point, but the development of a broad knowledge of the job, as well as those of associates, and the development of sound judgment are equally important.

We in public service are hampered somewhat by a shortage of scientists and engineers. At least there is a great field for enlarging those services. How can we bring this about? There are two possible solutions:

1. Obtaining an ample force of highly qualified engineers in each organization so that all work of an engineering nature is performed by qualified engineers, or

2. Lacking an ample supply of engineers, make the best use of those we have or can obtain and use other persons with natural or developed aptitudes to assist the engineers.

Considerable attention is now being devoted to encouraging young people of natural ability to continue their scientific training through high school, college, and postgraduate work as well. Public agencies are giving some measure of support to these programs. They will no doubt continue this support as a means of obtaining a more adequate supply of scientists and engineers. This is a laudable but a long-time program. The ultimate benefits cannot be obtained for some time.

A MORE immediate benefit can be, and in many cases is being, obtained by advanced training of those scientists and engineers which we already have and by training other employees we now have in some phases of engineering or science which they are capable of grasping quickly and using effectively. The agencies of the Wisconsin state government are doing some things along these lines in order to meet the engineering problems confronting them. I believe the experience in Wisconsin with which I am most familiar is somewhat typical of the experience in other governmental units.

The *Wisconsin Highway Commission* has the largest engineering force of any state agency. Its annual construction program has increased from $42.5 million in 1954 to $156 million in 1958. Its engineering staff has been increased from 400 to 440 during the same period, an increase of only 10 per cent. A number of measures were adopted to meet this greatly increased work load, including the following:

1. Engineers were relieved of nontechnical work such as buying right of way, handling personnel matters, and performing routine surveying and computation.

2. Aides and technicians were employed to do the work of less difficult nature.

3. Training programs were installed, one for new young engineers to develop them as top-grade versatile engineers, and another type of training was installed for right-of-way agents, technicians, and engineering aides to teach them to handle work up to the place where engineering decisions are necessary.

4. An intensive recruiting program for engineers was instituted which added some men to the engineering staff.

5. New types of equipment were adopted, new survey methods, electronics, drafting short cuts, standardization of design, revised contract procedures, and photogrammetry were employed.

6. On many highway projects topographic maps and plans are produced by use of photogrammetry under contracts with aerial mapping companies. The man-power saving is great.

7. Finally a large amount of work has been contracted to firms of consulting engineers.

THE *Bureau of Engineering* is responsible for the design and construction of all buildings and related structures for the state of Wisconsin. Work on projects estimated to cost $44 million is now in progress. Three-fourths of this program is under construction involving 275 separate contracts. Many of the projects are designed under contracts with consulting offices.

As a result, the permanent engineering staff is not large but must be versatile and capable of handling a great variety of assignments. There is a shortage of qualified engineers in the bureau and all of the tasks and duties not requiring en-

gineers are assigned to technicians and clerical workers. Conversely, tasks which require engineering judgment and expeditious handling are assigned to engineers who can handle them with the minimum of delay.

The bureau is working toward standardization of engineering procedures which lend themselves to such treatment and engineers are encouraged to expand their field of interests to include the study of materials and methods of building construction normally associated with architectural training. They work closely with the architects in the bureau as well as those employed under contract. Their broadened training will increase the variety of problems requiring engineering judgment which they can handle, thereby keeping the number of people involved in a particular problem at a minimum.

The bureau employs engineering students for summer work and for part-time work throughout the year to give them some insight to practical applications and has allowed some of its regular employees to work on a part-time basis to enable them to continue their engineering education. The bureau also sends some of its engineers and technicians to training institutes to learn of improved procedures and new techniques.

THE *public service commission,* which is charged with regulation of public utilities, transportation companies, and the use and control of surface waters in Wisconsin, employed as many as sixty engineers on utility inventory and appraisal work a number of years ago. Now the bulk of such work has been eliminated by requiring the principal Wisconsin utilities to install and maintain adequate continuous inventory and unit cost records which provide the required cost data for security and rate cases, for purchases and sales of utilities, and for determining annual and accrued depreciation.

This work has been so systematized that much of it is done by the utility clerical and accounting staff and by the use of punch-card and other machine accounting methods. The commission engineers and accountants do enough inspection and spot checking for accuracy of procedures and results to assure satisfactory compliance with the commission directives.

EVEN with the reduced demand for engineers because of these changes, not only the Wisconsin commission but comparable commissions in other states suffered a net loss in their engineering forces required for a great variety of other engineering work. Over the nation the net loss has amounted to about 7 per cent of the engineering forces during the five-year period from 1952 through 1957. The losses have been largely by death or retirement and to industry employment, usually at much higher rates of pay. To overcome this loss in a field of growing activity and complexity the commissions are joining together in a more intensive recruiting program and in a short advanced training program for employees, the first of which is planned to be given at Georgia Tech in 1959.

It is expected that such in-service training in the field of public utilities regulation will make this phase of public service more attractive to engineering graduates. We expect to continue losing some of our best men to industry, but we also expect to keep a reasonable percentage of them—those who become so interested in public service that they will not leave that work for greater pay.

THE *State Board of Health* and the Committee on Water Pollution Control have a closely co-ordinated engineer-

"YOU REALIZE, PETE, THAT THIS RUINS OUR CREW'S 100 PER CENT SAFETY RECORD FOR THE YEAR!"

ing staff concerned largely with the use of water for domestic and sanitation purposes. Recently about one-fourth of their engineering job specifications have been rewritten to allow the employment of non-engineering personnel for certain duties and responsibilities. Graduate engineers will continue to carry the load where fundamental engineering knowledge is required.

These engineers are in frequent contact with large segments of the public and hence must be diplomats as well as versatile engineers.

The *Industrial Commission,* which is charged, among other things, with defining safe places of employment and enforcing applicable statutes and codes, employs a small group of engineers whose duties are in the nature of consultants, examiners, and analysts. Field inspections of an engineering nature, which can be done by technicians, are assigned to inspectors who are supervised by an engineer.

THE *Conservation Department* has an engineering staff to handle work in connection with about 1,200 buildings, mechanical equipment, including a fleet of 600 trucks, well-drilling and fire-fighting equipment, 2,500 miles of communication circuits, mobile radio equipment, mapping

projects, and numerous small dams. The engineering section, which is not a large one, employs about as many technicians as it does engineers. In addition, the section received a great deal of assistance from nonengineering personnel in the field divisions who have experience in construction or surveying.

The *federal agencies* draw heavily on state agencies for their technically trained personnel as they also do in other fields of employment. The Congress has just recently passed a law which will authorize federal agencies to train personnel at schools outside the federal government. This authority may be of help in supporting school programs such as the one for utility regulatory commission employees now being planned for Georgia Tech in 1959.

FROM this summary you have some idea of what is being done to best utilize the engineer in public work. To some extent such methods and devices have been long in use. I shall cite one example.

Years ago a young college undergraduate, majoring in mathematics, obtained a summer job as a rodman with one of the railroads which was extending a line into the western prairies. He boarded a supply train, rode most of the day, and reported to his chief of party at the end of the line. He found the chief of party, who was also acting as instrument man, seriously ill. The chief said to my friend: "You are now chief of party and instrument man. I must go back on the supply train. Here are my field notes. Carry on." My friend did carry on—all summer without relief. He learned his surveying from his predecessor's notes and from his crew. He took the responsibility and the railroad construction moved ahead. The mathematican went on to become a graduate engineer. I became acquainted with him years later when he was a practicing engineer.

When young men such as he can carry out assignments so far beyond their previous training, so also can graduate engineers and scientists. They can pioneer. Many of them do. Who gave Leonardo da Vinci his concept of an airplane; or Rutherford and others the vision of the power of the atom harnessed? They were pioneers, stretching their potential to the utmost.

SCIENTISTS and engineers today in the free countries have, more than ever before, the duty of stretching their talents to the utmost in order that we may maintain an appropriate position in world society—in order that our form of government may not perish from the earth.

The enlightened leadership which they can provide need not consist of a continual grind. Vision is often more productive. Sometimes gazing at the floor or ceiling or viewing the miracles of nature developed in conformity to the immutable laws of creation will be more productive of inspiration, more helpful in the process of sifting and winnowing than will six hours a day of overtime. Sometimes it may even help to put our feet up on the table and let more blood flow to our head. In public service the latter practice had best be exercised at home.

—GEORGE P. STEINMETZ,
Chairman, Wisconsin Public Service Commission.

ADDRESS before the Wiconsin Conference on Utilization of Scientists, Engineers, and Technicians, August 21, 1958.

Wanted: Businessmen for Government Service

MANY businessmen are averse to the idea of government service. Those who do undertake governmental work do not always stay long enough. These conclusions were reached by the Harvard Business School Club of Washington after a three-year study of the rôle played by businessmen in government. The study also revealed that the Eisenhower administration has had an "exceedingly difficult time getting the kind of businessmen it wants."

A hard new look at recruitment of government personnel is imperative, the Harvard group insists, warning that the "new competition with the Soviet Union is more likely to be won in the sprawling bureaucracy of Washington, D. C., than on some remote battlefield. While the various government agencies have recruiting programs for career Civil Service personnel, they lack completely an analogous recruiting program for seeking out and bringing in business executives and others for top executive positions."

The survey covered businessmen who have served the Eisenhower administration and men who held posts under previous régimes. It was based on personal interviews and answers to 1,576 questionnaires.

It revealed that almost 90 per cent of the businessmen who entered government were offered federal jobs either directly by a government agency, or indirectly through their industry or their own company. Remaining 10 per cent went out and sought government service on their own. Surprisingly enough, the report said, many businessmen who try to offer their services find their efforts abortive, since they are unable to discover the right contacts.

Advantages and disadvantages of government service were disclosed by the survey. One-half of those who served the government for some time said they believed their business careers were enhanced by their public service backgrounds, one-third of them got better jobs when they returned to private industry, and only 4 per cent indicated their careers had been injured. The average businessman takes a salary cut in working for Uncle Sam. While salaries range from $12,000 to $25,000, most of the jobs pay less than $15,000. Government work is demanding, too, and most government executives said they had less time to spend with their families. One of the chief complaints about government service was "red tape," a problem mentioned by 48 per cent of those interviewed. However, only 9 per cent said they quit their federal jobs because they were fed up with it; most returned to private life because their agreed-on term of service expired.

FORMER Secretary of the Treasury, George Humphrey, underscored several complaints about working for the government. He did not like the thousands of compromises necessary in making key decisions as contrasted with quick, resolute action possible in industry. Nor did he agree that strict implementation of the conflict-of-interest statutes should be exercised whereby businessmen must give up outside sources of income. He argued that "honesty cannot be legislated."

In this matter of relinquishing private income-producing property — company stocks, for example—35 per cent of those interviewed believed that such action was necessary if a clear-cut conflict of interest actually existed, but the other 65 per cent maintained that such investments should be kept. Significantly, 80 per cent of career civil servants thought the businessmen should be permitted to keep their

investments unless there was an obvious conflict of interest.

The Harvard study group recommended divestment of ownership interest "only where the job, the ownership interest, the relationship between the company and the government job are such as to indicate a clear and present danger of personal conflict."

Urging an increased public awareness that "most businessmen enter government service with a sense of integrity," the group suggested "substantial criminal penalties for those found to have violated the public trust."

Jean Cattier, a partner in White, Weld & Co., New York investment banking firm, who headed the foreign aid mission to Germany, declared he was favorably impressed with the efficiency of his part of the government, but thought too many large policy decisions were made by low level staff people whose power was greater than their ability.

Robert A. Lovett, partner in Brown Brothers, Harriman & Co., who became Defense Secretary, complained: "Committee work is a trend of modern management which has gone too far in government." Despite the problems, businessmen generally leave the government with a more sympathetic attitude towards its complexities and its people, the report said.

To boost recruitment of businessmen for the government, the Harvard group urges the White House to maintain a central recruiting office to catalogue top executive requirements, act as a clearinghouse for businessmen offering to serve, and actively recruit when no qualified candidates are available. The report insists that businessmen should serve a minimum of two years, or else be engaged as consultants, rather than as full-time executives.

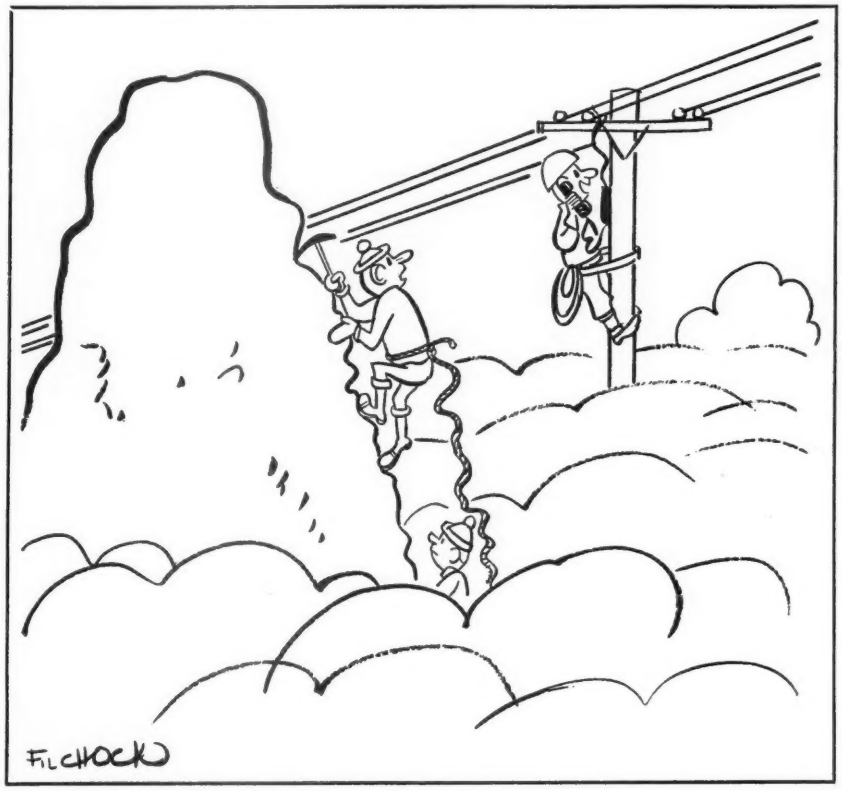
This study was financed by a $30,000 grant-in-aid from the Committee for Economic Development, a private business group, and the Fund for Adult Education. The project was directed by Dr. Wilford L. White, chairman of the survey steering committee, and Louis A. Traxel, executive director. Dr. White is chief of the management services division of the Small Business Administration.

What Does the Investor Expect from His Utility Investments?

Harold H. Young, partner in the firm of Eastman Dillon, Union Securities & Co. of New York city, had some interesting comments on what the investor wants in his utility investments. If summed up in one sentence, Young said in addressing the recent forty-eighth annual convention of the Indiana Gas Association, the investing public would tell you, "We like to see earnings going up."

Young stated that "while buyers of utility stocks are essentially a conservative group wishing income and security, they nevertheless seek to make their money work as hard as possible within a conservative framework. Therefore, they are constantly searching for companies making progress. They are satisfied if modest improvement is shown from year to year, but often become restive if progress is lacking."

In recent years preference for shares of utility companies operating in so-called "growth areas" has been strong. Young said this point of view is not altogether warranted and unquestionably has been carried to excess. But it exists and must be reckoned with. It is a special challenge for companies operating in areas where



the investing public is not thoroughly sold or enthusiastic about growth trends. There is a real need for these companies to carry on an educational program pointed at the investing public.

SUCH a program, Young pointed out, involves careful preparation of annual and quarterly reports and, in addition, there should be a continuing flow of material going to people in the investment community to apprise them of favorable developments pertaining to the company and the territory it serves. He declared:

> Good earnings, good dividends, and the prospects of higher earnings and higher dividends are the principal interests of investors in utility stocks. Since utility stocks do not provide a vehicle for large capital gains, investors like to think of the prospects of higher dividends as giving them protection against inflation with some modest enhancement in value.

Young brought up the questions of financial strength and favorable regulatory atmosphere as being factors that investors eye critically. "Financial strength of a utility is important, too," he said. "People like financial structures that are not too conservative. And they like to feel that their companies are operating in favorable regulatory atmospheres. The investing public is more sensitive to and better informed in this respect than might be generally believed. News of oppressive or re-

stricted regulation gets around fast and investors shy away from states in which regulation is bad."

Then, too, Young added, investors like to have a feeling of confidence in the people who run their company and the way it is being run. As to this they very frequently must depend on people in the investment community who have the opportunities to make personal contacts.

Dynamic Generation of Good Will

THE power of good ideas is often like that of a snowball going downhill. It gains size, weight, and momentum in a hurry. Good-will generation is a perennial problem of all utilities. Serving "captive" customers, a utility faces a much tougher problem than the average business organization in keeping the good will of everyone. In the June 9th issue of *Investment Dealer's Digest,* McGregor Smith, chairman of the Florida Power & Light Company, tells of some of the public relations programs his company has initiated. When Florida's winter season was relatively short and there was no summer tourist business to speak of, a "Stay through May" promotion was started. It spread like wildfire. It became a popular slogan that issued from race track loudspeakers and was plastered on vacant billboards throughout the state.

Mr. Smith mentioned the good use to which special paper napkins were put by his company. He stated:

> Our "Yankee Brow Moppers" are in constant demand. More than 2 million of these paper napkins have been distributed by Floridians at conventions, on vacation trips, and by mail to their friends. They are paper napkins with a message "For folks 'up nawth' who don't know about Florida's mild summers and budget vacations." Inside they contain Weather Bureau statistics to prove that Miami's summer temperatures, on the average, reach 90 degrees or above only six days a year.

Another campaign that the company launched was "There's More to Florida than Meets the Eye." Through ads people were told about the sound economy of Florida and were invited to investigate the opportunities existing in Florida. The company offered its resources in helping them.

Chairman Smith reports that Florida residents are conscious of these various company promotions and that his company has received many public commendations for its efforts.

Smith does not overlook the importance of good-will generation through the medium of the company's employees. The various public relations programs engaged in by the company help in this direction, he said. They inspire employees to participate.

A SPECIAL campaign was originated by this company on courtesy. It was taken up by civic and business organizations. Business cards used by company employees had the word SMILE printed in tall red letters on one side. This idea created thousands of requests for the cards which can now be found all over Florida. To promote traffic safety, Florida Power & Light produced a bumper strip that read, "In traffic—as always—Do Unto Others." This produced a barrage of phone calls from individuals and groups, related Smith. Other groups got into the act. Chambers of Commerce, motor clubs, police departments, hotels seized upon the idea. Newspaper editors and writers authored scores of articles concerning outstanding acts of courtesy by Florida

Power & Light Company employees. It impelled Russell Kay, a Florida columnist, to write, "While (FP&L's) growth has broken all records in the state, its program to increase courtesy consciousness and build good will for Florida has more than kept pace, and it is a tossup as to whether the power-generating department or the good-will generating department is in the lead."

Notes on Recent Publications

A STUDY of the principal economic aspects of alternative policies for developing multiple-purpose river projects was recently published by Resources for the Future, Inc. It deals with methods of comparing the economic efficiency of different types of development, both public and private, and of estimating the effects of those alternative policies upon distribution of income. For example, it applies its new type of basic analysis of economic efficiency to two actual cases: Hell's Canyon on the Snake river and proposed development of the Coosa river in Alabama.

The study is written by John Krutilla, principal economist of the water resources research staff of Resources for the Future, and Otto Eckstein from the department of economics of Harvard University.

The authors believe that "public participation in the water field is required if efficiency is to be achieved." They reached this conclusion because it was obvious that such collateral benefits of river development such as flood control and pollution abatement would not normally result in a free market. They point out, too, that "If economic efficiency is to be realized through partnership arrangements, four basic problems inherent in the character of river basin development must be overcome." These are:

1. Where the most efficient scale of development is too large to permit marketing the output within the territory the most eligible private developer is franchised to serve, special marketing arrangements may be required.

2. Private developers of headwater storage may require compensation for the extra cost required to provide stream regulation for fiscally independent parties downstream, whether public or private.

3. Where maximizing the value of a system's output requires a high degree of co-ordination in reservoir operations, institutional arrangements to permit this degree of integrated management must be provided.

4. Where nonmarketable project services are to be included in a multiple-purpose project consistent with efficiency goals, the cost of such services must be publicly borne.

Krutilla and Eckstein also inquire into the true social cost of tax-financed federal investment funds and conclude that this would represent an interest rate of between 5 and 6 per cent. This is a substantially higher figure than the interest rate actually paid on federal borrowings.

Throughout the book it is stressed that the criteria of economics are the sole basis for the conclusions reached. But non-economic factors, the authors admit, often have been not only significant, but of overriding importance in determining what project or program should be undertaken.

"An efficiency solution to a water resource development problem is not necessarily the best solution," they declare. But they do contend that economic efficiency is always one relevant consideration in public decisions on water development, and that even when the final decision is taken on other grounds, analysis of efficiency is a "means of determining the economic cost to society of realizing such intangible values."

MULTIPLE PURPOSE RIVER DEVELOPMENT: STUDIES IN APPLIED ECONOMIC ANALYSIS by John Krutilla and Otto Eckstein. The Johns Hopkins Press, Baltimore 18, Maryland. Price, $4.50; 320 pages.

The March of Events

ABA Utility Section Meets

COINCIDENTAL with the eighty-first annual meeting of the American Bar Association in Los Angeles, California, the association's Section of Public Utility Law held its program sessions at the Ambassador hotel in the same city August 25th and 26th. The section, which includes nearly two thousand lawyers throughout the United States specializing in public utility regulation, was headed by Chairman Randall J. LeBoeuf, Jr., of New York city.

The first session on August 25th was devoted to regulation generally. C. William Cooper, vice president and general counsel, Consolidated Natural Gas Company of New York, presented the report of the Standing Committee to survey and report as to developments during the year in the field of public utility law. As chairman of the committee, Mr. Cooper was responsible for this annual publication of the section. It was distributed before the convention to its entire membership.

The text of the other papers presented at the section meetings on August 25th and 26th will be reprinted as a special Appendix to PUBLIC UTILITIES FORTNIGHTLY, November 6th issue.

The section elected as its officers for the coming year John B. Prizer, vice president and general counsel of the Pennsylvania Railroad Company, to be chairman; Clarence H. Ross of Chicago, vice chairman; Francis X. Welch, Washington, D. C., secretary. Also elected as new members of the council of the section were: Charles A. Bane, Chicago; C. William Cooper, New York city; John Lansdale, Jr., Cleveland, Ohio; and James N. Ogden, Mobile, Alabama.

Arizona

Vote on Co-op Sale

MEMBERS of the Verde Electric Cooperative, Inc., recently voted 239 *yes* to 115 *no* on the issue of whether to sell their electric facilities to the Arizona Public Service Company. Despite this 2-to-1 preference for the sale, the proposal failed to carry because the bylaws of the co-op required a majority vote in favor of any action to make it effective.

Arizona Public Service had offered to pay about $600,000 for the distribution system. It also had agreed to pay all outstanding obligations of the co-op, including government debt and deferred interest charges, and to refund all fees and deposits required of the members.

In addition, Public Service offered to lower rates by 25 per cent; to invest $50,000 during the first year of operations to

bring the system up to normal operating standards; and to establish adequate facilities and personnel in the area in order to give the members topnotch service. Contributing to the defeat of the issue were the absentee votes of co-op members. Those not present were counted as being opposed to the sale.

Florida

Natural Gas to Miami

NATURAL gas service may come to Miami by June, 1959. Completion of financing for a projected Texas-Louisiana-Gulf coast to Miami pipeline system has been announced.

Certificates of convenience and necessity were issued by the Federal Power Commission in 1956, but Florida fuel oil, coal, and railroad interests have delayed the project in the courts. When it was denied certiorari by the Supreme Court, in May of this year, the green light was given to proceed with the financial aspects.

Coastal Transmission Corporation will build 574 miles of pipe from McAllen, Texas, to Baton Rouge, then Houston Texas Gas & Oil will build 950 miles of pipeline to Miami. About 275,000 Mcf daily will be the average amount transported, 55 per cent going to Florida Power & Light Company and Florida Power Corporation. Later the system will be expanded to a capacity of about 410,000 Mcf a day.

Maryland

Regulatory Study Urged

THE Maryland State Legislative Council has been requested to conduct a thorough investigation of the activities of the state public service commission. The request came from Senator Philip H. Goodman, Baltimore Democrat, in a letter to the head of the Legislative Council. Goodman said his action stemmed from his conviction that the present and previous commissions have leaned over backwards to favor utility applications for financial relief.

He asked that a three-man committee of the council sit in on a current transit company rate case, determine if the hearings were fair and impartial and the public properly represented, and then return to the council with recommendations for a positive and aggressive legislative program. This program, he said, would include changes in the state's regulatory law if the committee deemed it necessary.

New York

Urge Generating Plant Sale

TWENTY Republican legislators from New York city have asked Mayor Wagner and the New York Transit Authority to dispose of the authority's generating plants as soon as possible. Earlier this year a committee headed by City Administrator Preusse recommended the sale of the plants to Consolidated Edison for $123 million. The legislators promised their best efforts in protecting and preserving the present 15-cent transit fare.

In urging the immediate sale they implied it might help cut the operating deficit. They stated that by sharing power costs between the city and the authority that the transit body's operating costs can be cut by $5.5 million a year. Furthermore, they suggested that the money received from the sale of the generating plants should be earmarked for modernizing and extending the city's subway lines.

Texas

Gas Producer Threatens Trespass

A GAS purchase contract, which Texas Gas Products Corporation has with Leland Davidson, Ralph Pembrook, and other producers, will be canceled unless it meets the terms and price paid by El Paso in the Reagon county area.

More than that, the producers served notice that they wished to sever pipeline connections upon expiration of the five-year contract period and remove them from their property.

Failure on the part of the Texas Gas Products Corporation to do so, would result in trespass. The producers said they would then take it upon themselves to remove the pipelines. They also declared the FPC had no constitutional right to extend a contract beyond its primary term. They said that since the contract calls for an increase of price at the end of the five-year period, it is incumbent upon Texas Gas Products Corporation to obtain permission from the FPC to raise the price to a satisfactory figure. If this permission is not granted, then the contract will automatically terminate at the end of the five-year period stipulated in the contract, the producers insisted.

West Virginia

PSC Predicts New Increases In Gas Rates

SOUTHWEST gas suppliers are preparing to go before the Federal Power Commission and ask for higher gas rates, Hillis Townsend, member of the West Virginia Public Service Commission, told a legislative interim committee. This, he warned, is likely to set in motion another round of gas rate increases in West Virginia.

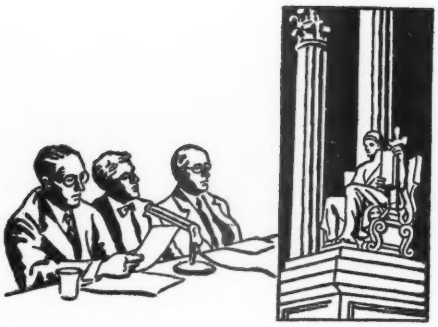
Tennessee Gas Transmission Company has a contract that permits a number of independent southwest producers to get price increases this fall. Consequently, Tennessee Gas will apply for a rate increase, effective April 1, 1959.

When Tennessee Gas rates go up, it will mean a higher rate for Manufacturers and United Fuel Gas, which is one of four Columbia Gas System companies, which together serve about 198,000 customers in West Virginia. Moreover, all four companies have rate increases pending at the present time, totaling more than $6 million. United Fuel's $4 million increase affects 115,000 customers in southern West Virginia.

The Nation's First

FIRST steam turbine generators with water-cooled stator windings will go into the Philip Sporn generating plant owned jointly by the Ohio Power and Appalachian Power companies. This new design is a departure from the usual design in the generator field. It makes possible generator ratings as high as one million kilovolt amperes. Two 265,000-kilovolt ampere generators will be used in the cross-compound Sporn unit.

General Electric Company, the manufacturer, believes water cooling will double generator ratings now possible with conventional cooling (using oil as the coolant) within the same frame size. GE also foresees the new design as offering savings in power plant construction costs. The new Sporn plant unit will raise the plant total operating generating capability to more than one million kilowatts.



Progress of Regulation

Trends and Topics

The Fair Value Rate Base

FOLLOWING the decision by the appellate division of the New York supreme court (8 PUR3d 229) overturning orders in the telephone rate case (commission decision in 5 PUR3d 33), the meaning of fair value was discussed in FORTNIGHTLY, June 23, 1955, at page 795. Reference was made to the Hope case (51 PUR NS 193), statutory rate base requirements, and the meaning of value. A re-examination of the subject in the light of several recent cases would seem to be timely. Some courts have said that value means value and not cost. The Arizona supreme court said that fair value is not synonymous with prudent investment (13 PUR3d 456).

Support for Fair Value

The Alabama supreme court, in a recent decision on rates for Southern Bell Telephone & Telegraph Company, expressed its opinion on three of the most controversial issues presented in cases involving the fixing of a rate base: (1) The statutory words "reasonable value of its property" actually mean fair value and not cost or some other figure; (2) this value is not measured entirely by reproduction cost less depreciation but is measured by such cost and other material evidence; (3) although reproduction cost is not controlling, the statute means more than receipt in evidence of the "cost of reproduction" and its summary rejection. The legislative intent was that consideration in good faith be given to the element of reproduction cost as some evidence of the value of a utility's property for rate-making purposes. Alabama Pub. Service Commission et al. *v.* Southern Bell Teleph. & Teleg. Co. July 24, 1958.

The Illinois commission has followed the ruling of the state supreme court in the Illinois Bell Telephone Company case (98 PUR NS 379) that just and reasonable rates are predicated upon "the present fair value" of the utility property. In order to ascertain fair value, the commission is required to take into account current economic conditions, price levels, reproduction cost as well as original cost, amount expended in permanent improvements, and probable earning capacity (22 PUR3d 358).

The same commission, in its recent decision in Re Commonwealth Edison Co. (24 PUR3d 209), again stated that it was under a statutory obligation to use a present fair value rate base after considering reproduction cost and other factors. The commission considered, among other things, the Handy-Whitman Index for trending, and it refused to rely upon spot price levels in determining reproduction cost.

In Maryland it has been said that the commission is not tied to any one formula and while reproduction cost is a factor, it is not necessarily controlling. City of Hagerstown *v.* Maryland Pub. Service Commission (1958) 141 A2d 699, 24 PUR3d 295. The Maryland commission, in Re Baltimore Gas & Electric Co. (24 PUR3d 247), said that reproduction cost is not the equivalent of fair value.

The Minnesota commission, in a recent case involving rates of Northwestern Bell Telephone Company, faced the problem of determining a fair value rate base required by a law enacted in 1957 by the state legislature. This law requires the commission to give due consideration to evidence of the cost of the property when first devoted to public use, prudent acquisition cost, less depreciation on each, current values, and any other factors or evidence material and relevant thereto. The commission said that broadly speaking the term "current value" means the value of the company's property expressed in present dollar values or at the present level of prices. It was the commission's opinion that it must give adequate consideration to the various measurements of current value in arriving at fair value (23 PUR3d 267).

The Missouri supreme court last year reversed and remanded a commission rate order with directions to consider fair value. The court reviewed the history of the "fair value" controversy, referring to the decision in the Hope case (51 PUR NS 193) which "sprang from the continued insistence on the part of public utilities that reproduction costs be a dominant factor in determining the value."

The court said that although numerous courts and commissions had treated the Hope decision as authority for total abandonment of a rate base predicated upon present value, it clearly was not. The court referred to the decision in the Iowa-Illinois Gas & Electric Company case (20 PUR3d 159) where the Iowa court said that when the Hope case is fully considered, together with the statutes with which it dealt, it could not be taken to be an authority that the finding of a rate base and "conventions of rate making" should be omitted in rate proceedings (22 PUR3d 254, 264).

The statutory requirement in Montana that the commission shall ascertain the value of the property does not impose upon the commission any type of formula. Beyond directing attention to assessment rolls and other public records, the statute leaves the matter of valuation entirely within the commission's discretion. The commission quoted from decisions by the state supreme court (33 PUR NS 151, 18 PUR3d 277, 18 PUR3d 355), and it concluded that reproduction cost new less depreciation is not the exclusive measure of value for rate-making purposes, although it is an important factor. The commission said that assessed value, standing alone, is not a good criterion

of physical value, although it does have a relationship with other measures of value and should be considered (23 PUR3d 233).

The North Carolina commission determines a fair value rate base by considering such factors as age of properties, recent plant investment, and original cost (24 PUR3d 1). The North Carolina supreme court had said that the legislature, in using the term "value," was not referring to the original or replacement cost or to the exchange or sales price the property would command (3 PUR3d 307).

Fair value must be determined in Pennsylvania. The Pennsylvania commission, a state court declared, is not bound by formula, but may consider a number of measures of value as well as original cost and reproduction cost (24 PUR3d 9).

Adherence to Cost Rate Base

The Federal Power Commission has consistently measured the rate base by cost, and many state commissions continue to relate the return allowance to property cost rather than present value. The Idaho commission recently approved an original cost rate base as developed by the company (23 PUR3d 194), following the same practice as in an earlier decision (22 PUR3d 490) where it was stated that the commission should not use "present fair value."

In a telephone rate case before the California commission, the company introduced an exhibit showing "current value," but disclaimed offering such study for the purpose of asking the commission to depart from its "traditional consideration of a historical cost rate base." The commission said the study was of little, if any, probative value in the determination of a rate base and was entitled to no weight in arriving at such determination (23 PUR3d 209).

Adherence to an original cost rate base is also exemplified in recent cases decided in Kansas (23 PUR3d 45), South Dakota (23 PUR3d 321), Utah (23 PUR3d 125), Virginia (21 PUR3d 239), West Virginia (23 PUR3d 344), and Wyoming (23 PUR3d 68). The Wyoming commission cited an earlier decision (14 PUR3d 230) where it was said that the statute does not require any precise method, standard, or formula. The same theory was followed by the Michigan commission in Re Michigan Gas & Electric Co. (24 PUR3d 278).

Rulings in favor of a fair value rate base in the state of Maine, noted in the rate proceeding of the New England Telephone & Telegraph Company in 1953 (98 PUR NS 326), were upset by passage of a new law in 1957 providing that the factors involved "shall not include current value." The Maine commission referred to this new law in a recent telephone rate case (23 PUR3d 510).

Review of Current Cases

Uniform System-wide Gas Rate Increase Authorized In Trijurisdictional Service Area

THE District of Columbia commission granted Washington Gas Light Company a rate increase amounting to $2,654,000 in additional gross revenues annually on a system-wide basis. The company sought a $4.3 million gross increase, alleging that such additional income was needed to meet rising operating costs, facilitate necessary extensions and improvements, and afford a reasonable rate of return. This request would have raised rate levels 8.8 per cent. Investment per meter since 1952 has increased from $269 to $344. The rate of return earned last year under rates authorized in 1953 was approximately 5.28 per cent, while the authorized rate of return was 6.25 per cent.

Uniform System-wide Rates

Besides serving the city of Washington, the company furnishes service to surrounding areas in Virginia and Maryland. The commission agreed with the company that this whole metropolitan area comprised a single community. Washington Gas Light is an integrated company providing the same service to all users regardless of geographical location. It serves this compact area with gas purchased from a single supplier, so that the basic cost of the commodity is the same for every customer. Customer services and billing practices are the same for all users, and the company's common properties serve all three jurisdictions.

In view of these facts, the use of uniform system-wide rates was found to be just and reasonable. Under uniform rates, operating revenues for each of the three jurisdictions will be within one and one-fourth per cent of the cost of service. Reasonable distribution of the authorized revenue increase was required by classes of service in the three jurisdictions.

Attrition Offset

A net investment rate base was used, with an allowance for the company's investment in materials and supplies at the end of the test period. No claim was made for cash working capital. The rate base was determined as of the end of the test period in order to offset the adverse effects on earnings of attrition resulting from rising operating expenses and from the necessity for replacing relatively low-cost property with relatively high-cost property in the absence of a compensating increase in revenues. The end-of-period rate base has been adopted by a large number of other regulatory bodies as a counterbalance to attrition, it was noted.

Capital Cost and Return

The actual capitalization of Washington Gas Light as of the end of the test period was accepted as reasonable in determining capital cost. The percentages were 50.52 debt, 8.03 preferred stock, and 41.45 common equity. This capitalization was considered well-balanced and representative of the company's probable future capitalization. An average of the capitalization ratios for the preceding five years showing a smaller equity ratio was rejected.

The commission found debt cost to be 3.80 per cent and preferred stock cost 4.35 per cent. There was considerable difference of opinion as to the cost of common

equity capital, which made up the principal difference in the 7 per cent rate of return proposed by the company and the 6.10 to 6.25 per cent return proposed by a witness for the commission staff.

The company claimed the equity capital return should be 11.25 per cent, while the staff witness proposed 9.25 to 9.60 per cent. The company showed that ten comparable companies earned an average of 12.6 per cent on common equity over a five-year period while Washington Gas Light earned but 9.8 per cent. The average earnings-price ratio was 7.3 per cent for the ten companies and 7.9 per cent for the applicant. Average market price over book value was 78 per cent and 24 per cent, respectively. The pay-out ratio was 70 per cent and 69 per cent. These facts, the company witness said, put the ten companies in a more attractive light, from the investor's point of view.

Earnings on Common Equity

With respect to the earnings on common equity, the commission indicated that other jurisdictions may follow different regulatory principles from those employed in the District of Columbia. The commission could not on this ground increase the allowance for return on equity capital and thereby abdicate its responsibility to fix fair rates.

The commission recognized the relatively low market price over book value for Washington Gas Light's common stock as compared with that of the ten companies. Deficiencies in the company's earnings during recent years no doubt had an adverse effect on its stock in the market. Such deficiencies, however, were due in large measure to factors over which the commission had no control, it was pointed out.

Noting that the earnings-price ratio of Washington Gas Light was higher than that of the ten companies, the company witness proposed a markup of 30 to 44 per cent. The commission could not accept this proposal. Using an earnings-price ratio of 8.68 per cent determined by the staff witness and making a 10 per cent allowance for financing costs, the commission found a cost of equity capital of 9.64 per cent. An overall cost of capital of 6.27 per cent was determined.

Rate of Return

A fair rate of return, however, requires something more than bare cost of capital, said the commission. A rate of return of 6.30 to 6.45 per cent would provide a return on common equity of 9.72 to 10.08 per cent, which was considered sufficient to enable the company to compete in the market for new capital. The commission noted that in fixing this return it had considered recent trends in the security markets and recognized the probability of a higher future cost of capital than that found in this proceeding. The additional gross revenues which were authorized were calculated to produce the top level of the allowable rate of return. Appropriate rate schedules were promptly submitted by the company and were approved. *Re Washington Gas Light Co. Order No. 4468, PUC No. 3594, Formal Case No. 456, July 22, 1958.*

EDITOR'S NOTE.—The Washington Gas Light Company made a similar application to the Maryland commission for a system-wide rate increase on the same record made in the foregoing case. Without discussing the issues involved, the commission expressly adopted the discussion and conclusions of the District of Columbia commission and authorized the same gross revenue increase on a system-wide basis. *Re Washington Gas Light Co. Order No. 53669, Case No. 5546, July 24, 1958.*

Reproduction Cost Weaknesses Outlined By Washington Commission

THE Washington commission, in granting a telephone company a modified rate increase, adopted net investment, or original cost, as the appropriate measure of value in determining the rate base. Such a method deals in documented and historical facts, said the commission, recorded every day in the books of account.

An estimated cost of reproduction new is an engineering estimate of what it would cost to build the property new today, using present-day costs, with current prices of material and labor, and with the advantages of modern techniques. The latter has certain weaknesses.

First, obsolete and outmoded items of property are priced out and included at current prices. The usefulness of the concept of reproduction new as an indicator of what would be required in today's dollar market to duplicate the property thus becomes questionable.

Second, even where unobtainable through ordinary manufacturing sources, obsolete items are still, nevertheless, often reproduced, with consequent high tailor-made costs. Again the artificiality of the method impairs its value.

Third, if the property were actually being built new today, the elimination of outmoded equipment would have the effect of reducing the present costs of operation and maintenance used in part to justify higher rates for service. It is hardly useful to conceive of reproducing equipment which obviously produces high operating expenses.

Fourth, a utility property of any size built over a considerable period of time has many deficiencies in its engineering design that would be eliminated if the investment were being made today. Dollars spent today, therefore, even though inflated dollars, would often produce more of value than the value remaining from the older dollars of investment.

Fifth, an estimated cost of reproduction new fails to take adequately into account many new types of material, new devices, and, viewed in larger masses, new types of installation because these are not adequately represented in the existing system which is priced out. Dollars invested today would go into these newer types of material and newer types of installation. They would have value advantage, also, in dollars of investment saved from new techniques of construction associated with the newer types of material and more efficient devices.

Sixth, an estimated cost of reproduction new suffers from almost insuperable inventory difficulties. A conservative method calls for a nut-and-bolt inventory requiring a great amount of detail. Sampling procedures are quite likely to prove unreliable when applied to property of such great diversity and complexity in structure.

Seventh, the greatest difficulties of reproduction new occur in the field of pricing, especially in the fields of the pricing of labor costs and of overheads.

Expense Adjustments

After determining that a return of between 6.0 and 6.1 per cent on the net investment rate base was fair, the commission made a number of adjustments in the expense allowances. The accident and damages account, which included a single unfortunate accident that distorted the account for the test period, was amortized over a five-year period in order to reflect a more normal or representative

pay-out figure for the test period on a *pro forma* basis. The same amortization procedure was followed with respect to out-of-pocket regulatory expense, incurred by the company primarily in compensating noncompany experts.

Tax Expense

During the test year, the company on a system-wide basis realized a total loss on abandoned or deferred projects with a resulting tax benefit or reduction. Such benefit was assigned entirely to nonoperating accounts on the basis that such losses constituted an "after taxes" loss. A staff request that a percentage of the tax benefit be allocated to intrastate operations was refused. The staff position, pointed out the commission, overlooks the fact that loss on abandoned projects represents a loss of nonoperating capital investment. Intrastate operations are not chargeable with losses on abandoned projects and it, therefore, follows that the tax benefit of such losses should likewise not flow to intrastate operations.

The income tax expense was adjusted to reflect savings brought about by the company, which was a subsidiary of the Bell system, filing consolidated returns with the parent.

Group Insurance

A group insurance program was made available to regular employees in the test year and to retired employees. Under the program, the company paid all of the premiums on life insurance for retired employees.

The Washington commission excluded such premiums paid for employees retired prior to the effective day of the program. The ratepayer, pointed out the commission, would receive no compensatory effects from providing such benefits for already retired employees. Such expenditures would, in effect, constitute a donation not properly chargeable by the company to the ratepayers. *Washington Pub. Service Commission v. Pacific Teleph. & Teleg. Co. Cause Nos. U-8971, U-9011, July 11, 1958.*

Automatic Cost-of-gas Adjustment Clause Upheld As Discretionary with Commission

THE Illinois supreme court upheld the state commission in authorizing Peoples Gas Light & Coke Company to file as part of its regular tariffs an automatic adjustment clause designed to pass on to consumers any changes in the cost of wholesale natural gas. The city of Chicago, served by Peoples, appealed the case.

The company purchases its entire gas supply from two interstate pipeline subsidiaries. More than 60 per cent of the total natural gas volume of the two pipelines, however, is sold to distributors and customers other than Peoples.

Statutory Authority

The city of Chicago contended that the automatic adjustment clause was unnecessary and contrary to the public interest, and that it permitted rate changes without the filing of rate schedules as required by statute. Under the governing statute, the commission has authority to suspend a proposed rate until a formal hearing can be had, or to allow it to go into effect without a formal hearing.

Statutory authority to approve rate schedules, the court pointed out, embraces more than the authority to approve rates

fixed in terms of dollars and cents. The automatic adjustment clause in question is a set formula by which the price of natural gas to the consumer is fixed by inserting in the formula the wholesale price of gas authorized by the Federal Power Commission.

Many state commissions operating under statutes similar to the Illinois statute have approved automatic adjustment clauses, the court noted. A decision of the Virginia supreme court (11 PUR3d 438) was cited with approval, wherein it was said that the commission has the power to change, under certain conditions, any part of a filed schedule that in any manner affects the rates charged. The decision further indicated that the rates under an escalation clause are as firmly fixed as if they were stated in terms of money.

On the question of public notice and hearing on rate changes, the court approvingly quoted from the Virginia court, which said that notice is not required for each change in the ratepayers' bills but that notice must be given for every change in the filed schedules which are the underlying basis for the computation of the bills. Thus, the ratepayer is afforded ample opportunity to be heard.

No Abuse of Discretion

The city of Chicago argued that the authorization of the clause constituted an abuse of discretion by the commission in view of the parent-subsidiary relationship between Peoples and the suppliers. The court disagreed, though it recognized that the relationship warrants regulatory scrutiny of contracts and dealings between the companies. However, the jurisdiction to regulate the wholesale price of gas is vested exclusively in the Federal Power Commission.

The court noted that there was nothing to suggest that the Federal Power Commission will not scrutinize the companies' relationship to protect the public against exploitation. Furthermore, the federal agency will be aided in the fixing of rates by the arguments of nonaffiliated customers of the pipelines, as well as by the city of Chicago and the state commission. Since the state commission is without power to consider the reasonableness of the Federal Power Commission rates, no abuse of discretion was apparent in the determination that the wholesale rates should be allowed as an operating expense.

Burden of Proof Unchanged

The commission rejected a contention by the city that the automatic adjustment clause was unlawful on the alleged ground that it shifts the burden of proof from the utility to the commission or consumer. While the city or a consumer complaining of unreasonable rates has the burden of proof, even where an increase results from an automatic adjustment, this does not amount to a shifting of the burden of proof.

In any rate filing, the commission has the discretion to let a rate go into effect without requiring the utility to bear the burden of proof. The commission also has authority to investigate rates at any time, and the burden of proof would be upon the utility. The commission thus has the power to determine when the utility must meet the burden of proof, regardless of the authorization of the automatic adjustment clause.

It was the practice of the commission, before the authorization of the automatic adjustment clause, to allow a rate increase based upon an anticipated increase in wholesale cost to go into effect without suspension. This, the court declared, is a

question of preferable techniques in utility regulation which, in the absence of an abuse of discretion, is beyond the scope of the judicial process. *City of Chicago v. Illinois Commerce Commission, 150 NE2d 776.*

Immediate Profit from Service Extension Not Necessary

THE New Jersey supreme court affirmed a commission order requiring a water company to extend facilities to a 60-home residential tract. The fact that the utility would not realize an immediate profit from the extension was held not dispositive of the matter since the criterion is the overall return.

A franchise holder, who alone serves an important and essential public need in a limited area, may not pick and choose its customers solely on the basis of pecuniary advantage and refuse to supply those who constitute an integral part of the locality simply because, considered in isolation, their consumption of the product would not produce a profit. A utility has the duty not only to establish a system suitable to current needs but also to keep in view probable growth of a township, both in population and structural development, and to make gradual extensions of its mains to meet reasonable demands that will inevitably result.

A statute provides that the commission may require a water company to construct an extension that is reasonable and practicable and will furnish sufficient business to justify construction and maintenance, when the financial condition of the utility reasonably warrants original expenditure in making the extension.

"Sufficient business" was construed as meaning that a reasonable number of prospective users in a reasonably integrated or localized group within the franchise area and within reasonable distance of existing facilities are desirous of service, and that the public convenience and necessity require that such users be served. Amount of return, present or prospective, may enter into the exercise of the commission's discretion as to whether the group constitutes sufficient business, but lack of profit or inadequacy of profit is important only as it affects the overall return of the utility. *Piscataway Board of Fire Comrs. v. Elizabethtown Water Co. Consolidated, 142 A2d 85.*

Profits on Equipment Purchases from Affiliate Examined in Telephone Rate Case

THE California commission authorized the General Telephone Company of California to increase rates by approximately $5,860,000 before uncollectibles. It decided that an average return of approximately 6.6 per cent was fair. The commission also believed that an initial rate of return of about 7.1 per cent was necessary in order to recognize the declining trend of rate of return indicated by the record in this proceeding. Accordingly, the new rates were predicated on such an initial return.

Equipment Purchases from Affiliates

General Telephone Company of California is a member of the General Tele-

phone Corporation system. Portions of its telephone equipment and supplies were purchased from the sales subsidiaries and manufacturing subsidiaries of its parent. In view of this situation, the commission held that the company had the burden of proving that its ratepayers were not burdened with the payment of unreasonable amounts to the affiliates.

The commission said that its primary concern, in the protection of the public interest, is that prices paid by the company for supplies and equipment be fair and reasonable. Profits made by the affiliates were deemed important only as a factor in testing the fairness and reasonableness of the prices charged by the affiliates to the operating telephone company.

Comparison with Bell System

The commission staff took the position that the relationship existing between the applicant and its affiliated manufacturing and sales companies was comparable to the relationship between the Pacific Telephone & Telegraph Company and its affiliate, Western Electric Company, members of the Bell Telephone system, and that the same types of adjustments should be made to the applicant's operations as were made in the rate cases pertaining to the Pacific Telephone & Telegraph Company. Accordingly, the staff's evidence contained adjustments to the company's book figures and estimates, reflecting in the commodities and services of the affiliates the approximate rate of return which the commission had found the company was earning at the time of its last rate proceeding.

The commission observed that while the evidence in this case indicated that certain analogies might be drawn between the applicant-affiliate and the Pacific-Western Electric relationships, such evidence did not establish that the two situations were so nearly alike that the treatment to be accorded the two should be identical or even parallel. It pointed out that there were numerous distinctions between the corporate relationships and the methods of transaction of business of the two. Equipment sold and manufactured by the subsidiaries of General Telephone Corporation is widely distributed to many independent telephone companies having no affiliate relationship with it. As a matter of fact, the record disclosed that less than 42 per cent of the combined sales of all of the manufacturing and sales subsidiaries of General Telephone Corporation reached General Telphone operating companies.

Return Factor

The commission rejected the staff method of testing the reasonableness of the prices paid by General Telephone of California to its affiliates by computing the resulting return to those companies on a hypothetical rate base. It said that the "average net investment" (rate base) of manufacturing companies varies widely in relation to the volume of goods produced and sold, and sales companies ordinarily have a minimal "average net investment." It concluded that the profits of the company's affiliates calculated as a percentage on gross sales were reasonable. It also believed the evidence was equally conclusive that General Telephone's affiliates charged General Telephone of California the same or lower prices than they charged nonaffiliated customers on the open competitive market.

Dissenting Opinion

Commissioner Peter E. Mitchell dissented, saying that the company had not established the reasonableness of cost of the equipment purchased from its affiliates

upon the basis of competitive bidding, nor by any other objective standard and that, therefore, the only reasonable yardstick available to the commission, in this case, was cost plus a fair rate of return.

Commissioner Mitchell said that General Telephone's totally controlled manufacturing and distributing companies earned a return on average net investment of 35.63 per cent in 1956 and 27.1 per cent in 1957 on their affiliate transactions. He believed that the affiliates made more profit on their sales than did Western Electric.

Commissioner Theodore H. Jenner agreed with Commissioner Mitchell that the disallowance of the unreasonable profits of the intracorporate transactions was the only finding consonant with the well-established commission precedents and the evidence presented in this case. *Re General Teleph. Co. of California, Decision No. 57086, Application No. 39465, August 5, 1958.*

Railroad's Right of Way Held Inviolate

THE Georgia supreme court reversed a lower court judgment which had denied a railroad an injunction restraining another railroad from laying a track across its track and right of way. No one, said the court, other than the state or political subdivision which grants a franchise can assail the validity of such franchise or the right to exercise the same, especially in a collateral proceeding.

A franchise is a contract and creates property rights. Once granted, the municipality may not permit one who holds a similar franchise to possess or use the property of the other franchise holder for his own purposes without the latter's consent or without first paying him compensation.

Without first making compensation for the damages which would result, the railroad could not lay and use its track across the track of the other railroad. *Atlantic Coast Line R. Co. v. Southern R. Co. 104 SE2d 77.*

Public Need for Common Carrier Service Held to Exist

THE Nebraska supreme court affirmed a commission order granting a trucking company's application for a certificate of public convenience and necessity to transport crude oil and sand-frac oil in bulk in tank trucks intrastate. The order was held to be reasonable and not arbitrarily made, and the commission was held to have acted within the scope of its authority.

In determining the issue of public convenience and necessity for the purpose of granting a common carrier certificate, said the court, the controlling questions are whether or not a proposed operation will serve a useful purpose responsive to a present or future public need, whether or not this purpose can or will be served as well by existing common carriers, and whether or not it can be provided by the applicant in the manner specified without endangering or impairing the operations of existing common carriers contrary to the public interest.

The primary purpose of common carrier control is to secure adequate sustained service for the public at a minimum cost and to protect and conserve investments

already made for such purpose. In so doing, the primary concern is that of the public rather than that of individuals.

It is not the purpose of control over the carriers by commissions to establish an unbridled monopoly by the elimination of fair competition, said the court. Nor is it intended to create unfair or destructive competition resulting in inadequate service to the public. It is a regulated competition, productive of efficient service at a minimum cost, operated for reasonable profit in the interest of public users of the service, without endangering or impairing operations of certified common carriers in the field, that meets the objective of commission control. *Re Basin Truck Co. 90 NW2d 268.*

Truck Certificate to Railroad Denied

THE Kentucky court of appeals held that the commission had properly denied a railroad's application for an intrastate common carrier truck certificate to carry freight in conjunction with its rail service over various routes generally paralleling its rail lines.

Since the railroad, in its application, had applied for an unrestricted regular route over-the-road truck certificate and was unwilling to have its certificate restricted to the specialized service it proposed to render, it had the burden of proving that existing facilities were inadequate to provide general service. It had not done so. *Illinois C. R. Co. v. Kentucky ex rel. Department of Motor Transportation, 312 SW2d 458.*

Gas Rate Increase Upheld Despite Disputed Cost of Purchased Gas

THE Arkansas supreme court upheld a commission order which authorized a gas company to increase rates from 16.38 cents per Mcf to 20.62 cents per Mcf for gas furnished to industrial consumers. The latter, appellants, attacked the commission's acceptance of a contract price of 12.78 cents per Mcf paid by the company to an affiliated supplier, in view of the refusal of the commission at the time of the hearing to investigate the merits of the supply contract. They contended that the contract price should not be accepted as a bona fide operating expense and that only the cost of production at the wellhead should be allowed.

No serious contention was made that the rate of 20.62 cents per Mcf was not fair and reasonable if the contract supply price of 12.78 cents per Mcf was fair and reasonable. The contract price had been previously approved by the Arkansas commission and by the Federal Power Commission as well. Furthermore, under a formula used by the appellants' expert, the wellhead cost of gas supplied by the affiliated producer was 13.185 cents per Mcf, exceeding the contract price. The increase authorized in the rates to industrial users was based on increases in the cost of doing business because of factors other than the cost of gas.

Even though the commission had the authority to fix the gas company's rate regardless of the price it paid for purchased gas, and notwithstanding that the prior approval of the contract price was not res adjudicata, still the commission

was not bound to disregard the contract price just because it had the power to do so. The only real issue was the reasonableness of the contract supply price, and the commission had full knowledge of the actual cost of the gas and on substantial evidence had approved the contract price. Since there was no fraud or arbitrariness in the commission's action, the court was bound to sustain it.

Dissent Cites Burden of Proof

A dissenting justice thought the gas company had been improperly relieved of the burden of proving the most vital element affecting its application for a rate increase, while the consumers were denied the right of cross-examination as an aid in their attempt to sustain a burden of proof that was not really theirs. The only issue, in his opinion, was whether the commission erred in accepting the company's contract price and in effectively shutting the door to any inquiry into the matter.

The justice observed that the contract price for purchased gas was made between a buyer and a seller who were essentially the same party. The uncontradicted evidence showed, he noted, that the contract price was not determined primarily by the market value of the gas. Consumers' efforts to investigate the fairness of the contract price were strenuously opposed by the company.

Finally, it was pointed out that the company did not show that the earlier proceedings were adversary contests in which the reasonableness of the contract price was at issue. Actually, those proceedings involved the disposal of gas properties by a utility company which was going out of business. In these circumstances, said the justice, the public has evidently had no opportunity to be heard on the question of whether the contract price, allowed by the commission as an operating expense, was reasonable. *Harding Glass Co. et al. v. Arkansas Pub. Service Commission, 313 SW2d 812.*

Deposit Guaranteeing Payment Delayed

A CUSTOMER of a gas and electric company protested to the New Jersey commission a company request for a cash deposit of $650 to guarantee payment of service charges. The customer admitted that, for the past two years, payment had been slow but alleged that his prior record was good and his credit standing and payment record generally remained satisfactory. He further stated that the difficult financial period appeared to be passing, and to require a cash deposit now would only make recovery more difficult and more drawn out.

The commission found that the customer had received all consideration due at the hands of the company, and, that the company's action was in compliance with its published rules and regulations governing the extension of credit. The order provided, however, that the requirement of a cash deposit to guarantee bills would be delayed as long as rendered bills were paid within the time limit allowed in the company's rules. In the event that the requirement was not met, the customer, in order to prevent interruption of service, would immediately deposit the sum of $650 in cash, or such other sum as might be deemed appropriate at that time, as a guaranty of payment for services rendered. *Hardware House, Inc. v. Public Service Electric & Gas Co. Docket No. 10758, July 30, 1958.*

Franchise Tax outside Town Disallowed

THE Colorado commission, in granting an application for a certificate to extend gas service, disallowed the charge for franchise taxes on customers residing beyond the corporate limits and required that the franchise tax within the corporate limits be surcharged on each bill sent to customers within the town, in order that there be no misunderstanding in the future as to the amount or nature of the tax.

The commission considered it contrary to good regulatory practice to permit a city or town to charge a tax outside of its municipal limits where the utility would be operating under a certificate from the commission in an area where the franchise did not apply. While a franchise tax is a legitimate charge by the town, said the commission, it was unable to determine the justification for the automatic escalation of the franchise tax. The commission was reluctant to encourage the practice of high franchise taxes, unless the need could be shown.

If the utility were merely to become a collection agency for the town, then the commission believed customers in the town should be informed in regard to the taxes they were required to pay. *Re Cortez Nat. Gas Co., Inc. Application No. 16411, Decision No. 50563, July 7, 1958.*

Other Recent Rulings

Telephone Service Extension. The California commission commented that the ability to provide reasonably adequate telephone service to existing subscribers and to continue to furnish such service should be a prime factor in determining how rapidly additional stations are connected since consistent degrading of service, in order to connect held applications ahead of adequate new plant facilities, quickly reaches the point where it is no longer in the public interest. *Palm Springs Chamber of Commerce et al. v. Coachella Valley Home Teleph. & Teleg. Co. et al. Decision No. 57052, Case Nos. 5740, 5741, July 29, 1958.*

Confiscatory Rates Increased. Finding that the rates of Eastern Indiana Telephone Company were confiscatory, the Indiana commission authorized an increase estimated to yield net operating income of $182,120 on a fair value rate base of $2,651,190. *Re Eastern Indiana Teleph. Co. No. 27451, June 13, 1958.*

Competitive Service Denied. In denying a motor carrier certificate, the Utah commission observed that an application must stand or fall on the showing of public necessity for the particular service and that a certificate is not justified if the applicant must operate another business to subsidize the transportation business. *Re Huffaker, Case No. 4610, June 25, 1958.*

Amendment of Application. The Federal Power Commission held that pipeline companies, in effect, moved to amend their certificate applications where, in a comparative hearing, they relied upon reserved capacity to supply proposed new markets and then, after the hearing was over, requested that a substantial part of such reserved capacity be permanently

allocated to meet increased requirements of present distributor-customers. *Re American Louisiana Pipe Line Co. et al. Docket Nos. G-2306 et al. June 25, 1958.*

Higher Initial Rates. The practice of initially establishing higher rates in new areas where system costs per customer and per unit of commodity are above system average, and gradually reducing the rates as the number of customers and business grow to a point that warrants system-wide levels was deemed reasonable by the California commission. *Re Pacific Gas & E. Co. Decision No. 56966, Application No. 38638, July 9, 1958.*

Duty to Serve. The Wisconsin commission held that a public utility is required to serve all applicants within its service area who reasonably require service provided the applicants comply with extension rules in force at the time the application is received. *Re Village of Grafton, 2-U-4932, May 22, 1958.*

Crossings. The Kentucky court of appeals held that legislative control over grade crossings and their elimination, by the passage of a statute, abrogated any common-law rights of cities with respect to such matters, so that a fourth-class city had no power under statutes to require a railroad to eliminate a grade crossing. *City of Harrodsburg v. Southern R. Co. 313 SW2d 864.*

Two-way Street. The California commission said that while it adhered to the principle that a public carrier must meet its obligation to the public such obligation is a two-way street, and when sufficient numbers of the public choose not to use the service afforded, to the point where the operation becomes highly unprofitable, the carrier cannot be expected, indefinitely, to continue the full service it had been rendering. *Re Atchison, T. & S. F. R. Co. Decision No. 56965, Application No. 39616, July 8, 1958.*

No Justiciable Issue. The United States court of appeals refused to render an advisory opinion as to the validity of a Civil Aeronautics Administration regulation which did not of itself adversely affect an air transport association or its member carriers, where any rights which might be affected adversely depended upon future administrative action, and no action had been taken or threatened which would affect the carriers. *Aircoach Transport Asso. v. Civil Aeronautics Board, 255 F2d 185.*

Prior Operation No Bar. The Pennsylvania superior court held that a motor carrier's prior operation without commission approval was not per se equivalent to an offense which would absolutely prohibit the acquisition of proper authority by the carrier. *Harry F. Atkinson & Sons v. Pennsylvania Pub. Utility Commission, 142 A2d 760.*

Telephone Company Return. The Colorado commission granted a telephone rate increase calculated to produce a return of 6.12 per cent. *Re Midland Teleph. Co. Docket No. 410, Decision No. 50346, May 29, 1958.*

Intrastate Figures Necessary. The Indiana commission held that railroads had failed to sustain the burden of proof to justify increasing intrastate transportation rates for coal and steel inasmuch as they had introduced no evidence of the intrastate character of revenues and expenses, as distinguished from system-wide charts, valuations, expenses, etc.; however, the commission, recognizing the

need for a financially sound transportation system, gave the railroads a further opportunity to produce the separation studies showing intrastate revenues and expenses. *Re Continental Steel Corp. et al. Nos. 27550 et al. June 11, 1958.*

Liability for Freight Charges. The New York city court held that notice to a delivering carrier that the party accepting delivery is not liable for charges will absolve such party of liability for payment of freight charges regardless of whether the arrangements for transportation were made by the shipper with a railroad carrier or an express company. *Railway Express Agency, Inc. v. Esformes, 174 NYS2d 878.*

Rate Reparation. The United States district court dismissed an action by railroad shippers to set aside an ICC order dismissing their reparation claim for alleged unreasonable rates paid on carload shipments of steel billets where the record supported the commission's finding that the rates had not been shown by the shippers to be unjust or unreasonable. *Waite et al. v. United States et al. 161 F Supp 856.*

Steam Department Return. The Indiana commission considered a return of 6⅛ per cent for the steam department of a combined power and light company reasonable. *Re Indianapolis Power & Light Co. No. 27529, June 26, 1958.*

Discriminatory Intrastate Rates. The United States district court held that the ICC has the power to establish intrastate rates in order to remove unjust discrimination against interstate commerce and that the commission is not required to wait until a state commission has sat in judgment on the issue of allegedly discriminatory intrastate rates. *North Western-Hanna Fuel Co. et al. v. United States et al. 161 F Supp 714.*

Strike Costs in Airmail Pay. The United States court of appeals held that strike costs and strike losses may be of such a nature and in such an amount that they can and should be charged against the return allowed an air carrier as profit on its investment in fixing mail pay for a past period. *American Overseas Airlines v. Civil Aeronautics Board, 254 F2d 744.*

Substitution of Carriers. The California commission held that it had authority to permit a large motor carrier to abandon service between certain points if it so elected and to allow another carrier to furnish the same service between the same points where it was necessary to safeguard the public against being deprived, avoidably, of needed service for a period of five years. *Re Sequoia Stages (Eastshore Lines), Decision No. 56883, Application Nos. 39410, 39428, June 24, 1958.*

Passenger Train Discontinuance. The New Jersey commission pointed out that no formula can be devised to determine how many passengers are necessary to establish whether or not the operation of a particular train is within the bounds of public convenience and necessity, and where lack of other adequate means of transportation appears, the number of the members of the public affected by a proposed discontinuance is not necessarily determinative. *Re Delaware, L. & W. R. Co. Docket No. 10581, June 6, 1958.*

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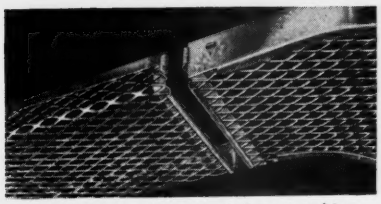

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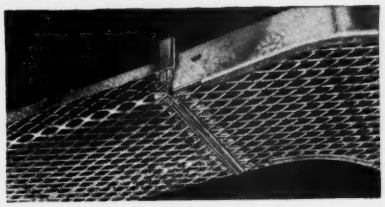
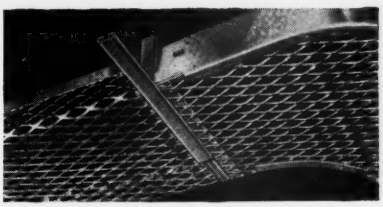


Side "Wedgit" channels inserted part way.



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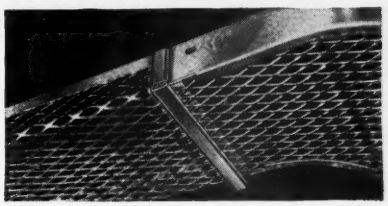

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Industrial Progress

G.E. Plans $47,000,000 Modernization at Pittsfield

GENERAL ELECTRIC Company plans to spend $47,000,000 during the next five years to modernize its plants in Pittsfield, Mass., Raymond W. Smith, general manager of the company's Transformer Division, has announced.

He predicted a boom in general business conditions by 1960 and 1961 that would bring a labor shortage to the Pittsfield area, where employment at G.E.'s transformer plants is now down to 8,700 from 11,000 on January 1, 1957.

While disclosing no details of the $47,000,000 plan to renovate the company's transformer plant facilities, Mr. Smith said the outlay was fully justified by business prospects. "Particularly heartening," he said, "is the backlog in the electric power industry of $350 million in potential orders not yet placed by utilities."

Improvement in power transformer business should begin to be felt next year, he said, following upturns that are already becoming apparent in housing, major appliances, autos, and steel.

A major portion of the modernization funds, he indicated, would go to improve power transformer manufacturing facilities, with smaller investments being made in the distribution transformer and ordnance plants.

Appalachian Power Plans $45,000,000 Hydro Project

APPALACHIAN Power Company has filed an application with the Federal Power Commission for a license to construct the proposed $45,000,000 Smith Mountain hydro-electric project in Virginia.

This application follows by two months the granting of a license by the State Corporation Commission of Virginia to build the project. Destined to be the largest hydro in the state, the project will have a capacity of about 320,000 kilowatts.

Construction, to start in a few months, is expected to take about three years. Appalachian has conducted preliminary studies for over four years.

The development includes an upper dam 235 feet high to be constructed at the Smith Mountain gap on the Roanoke river and a lower dam 90 feet high to be built at a site about 17 miles below the upper dam. The lower dam is to be located a few miles above Leesville.

The two dams will combine conventional development of hydro-electric power with pumped storage. This involves pumping back into the upper reservoir, during hours when Appalachian's power demand is relatively low, water from the lower reservoir for re-use at the upper dam when power demand is relatively high.

The $45,000,000 estimated cost includes construction of the two dams, generating facilities, transmission system connections, substations and land purchases.

Appalachian, one of six operating companies of the American Electric Power System, serves about 480,000 customers in an area with a population of over 1¾ million people in Virginia and West Virginia.

Thirteen Electrical Engineers Named Fellows of AIEE

THE Board of Directors of the American Institute of Electrical Engineers has elevated 13 of its members to the grade of Fellow, it has been announced by N. S. Hibshman, Institute Secretary. Fellow is the highest grade in the Institute and is an honor given in recognition of outstanding accomplishments by members of the electrical engineering profession.

The new Fellows and their citations follow:

Emerson A. Armstrong, consulting engineer, Electromotive Division, General Motors Corp., La Grange, Ill., "for contributions to diversified electrical applications in industrial processes."

Stanley C. Killian, assistant general manager and chief engineer, Delta-Star Electric Division, H. K. Porter Co., Inc., Chicago, Ill., "for contributions to design of high voltage bus and switching apparatus."

Leo Dolkart, electrical engineer, A. S. Schulman Electric Co., Chicago, "for contributions to design of diversified industrial distribution and lighting systems."

Wendell C. Fowler, district manager, Southwest District, Sangamo Electric Co., Fort Worth, Tex., "for contributions to instrumentation in the field of power."

Owen W. Hurd, managing director, Washington Public Supply System, Kennewick, Wash., "for contributions to design, operation, and management of large electric power systems."

Everett P. Larsh, president, Daytrol Corporation, Dayton, O., "for inventions and administration in the field of electrical apparatus."

Joseph W. Seaman, general manager, Power Transformer Department, General Electric Co., Pittsfield, Mass., "for contributions to the design and manufacture of power circuit breakers."

Lester R. Sellers, engineer in charge of electrical specifications and procurement, Tennessee Valley Authority, Knoxville, Tenn., "for contributions to coordination of design of large hydroelectric and steam plants."

Paul E. Shaad, assistant general manager and chief engineer, Sacra-

(*Continued on page* 22)

mento Municipal Utility District, Sacramento, Calif., "for contributions in reorganizing and planning an electric power district."

George J. Taylor, vice president in charge of Eastern operations, Day-Brite Lighting Co., New York, N. Y., "for contributions to application of electric lighting to industry."

Everard M. Williams, professor and head of the Electric Engineering Department, Carnegie Institute of Technology, Pittsburgh, "for contributions to the theory of communication and the development of electric spark machine tools."

Walter G. Roman, manager, Advanced Development Group, Bettis Atomic Power Division, Westinghouse Electric Corp., Pittsburgh, "for contributions to development of nuclear reactors for naval and land power."

William P. Carpenter, secretary and chief engineer, the Superior Electric Co., Bristol, Conn., "for contributions to techniques of controlling electrical illumination."

Gas Equipment Manufacturers Foresee Gains

MANUFACTURERS of gas appliances and equipment expect their sales to show gains during the latter part of 1958 and through 1959, an industry survey revealed recently.

The study, managed by Edward R. Martin, director of marketing and research for the Gas Appliance Manufacturers Association, is summarized in his new "general business outlook" report. It shows that with the exception of a few product categories, sales in the second half of 1958 will top those in the corresponding 1957 period, and in 1959 volume will show additional gains.

"Manufacturers do not expect spectacular volume," Mr. Martin said. "Rather, the general feeling is that the trend will be moderately upward and gradually accelerated during the next eighteen months."

Factors cited as a basis for optimism include the expansion programs of utilities supplying gas, the high level of housing construction and an expectation that in fields where uncertainties have prompted consumers to cut purchases, such actions will prove merely temporary deferments. Mr. Martin noted that 1958 sales have held up for such products as space heating and water heating equipment, while dipping for appliances such as ranges, refrigerators and dryers.

This, he said, was because equipment sales were for new construction of non-deferrable replacements, while many consumers were inclined to appliances "wait until next year."

"To a large extent, a company in or out of the recession depend on its line of endeavor," Mr. Ma observed.

The consensus of reporting ma facturers revealed a belief that des a general upward trend there will continued wide differences in the s performances of various type products.

Gas range sales are expected to t 1,785,400 units in 1958, down 9.3 cent from 1957, with a 1.9 per c upturn to 1,820,100 for 1959. H ever, the built-in component of range total is expected to continue series of uninterrupted gains w sales reaching 244,500 in 1959 against 212,800 this year and 197, in 1957.

There is confidence that autom gas water heaters will continue their present strong trend, with 1 sales totaling 2,679,700, up 5.8 cent, and next year's total reach 2,732,300, up two per cent.

For gas-fired warm-air furna for residential central heating, succ sive annual gains of 8.9 per cent 10 per cent are expected, with 1 sales reaching 841,700 units. C responding survey figures for boil for home heating are two per cent, per cent and 111,300. However, conversion burners are expected to down 14.4 per cent this year fr last, and an additional 2.6 per c decrease to a 136,300 total is ticipated for 1959.

Taking the above three residen heating types together, the prospec for sale of 1,012,500 units in 1958, 4.2 per cent, and 1,089,300 in 19 up 7.6 per cent.

Gas vented recessed wall heate are listed for successive annual ga of 7.9 per cent and 3.3 per cent, w the latter bringing the 1959 sales units to 357,600. For gas floor f naces the survey anticipates succes decreases of 18.6 and 2.5 per c with the 1959 figure down to 71,6

For other products the survey lis anticipated percentage changes 1959 vs. 1958, without giving the pected figures in units. A 41 per c gain was slated for gas incinerato which are being produced in n smokeless-odorless models.

Next year also is expected to p duce gains of 9.3 per cent for gas rect heating equipment, 19 per c for unit heaters, 17.4 per cent f d furnaces and 12 per cent for clot dryers, while a dip of 6.7 per cent anticipated for commercial gas rang

(*Continued on page 24*)

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Washington Natural Gas Plans $5,000,000 Program in 1959

WASHINGTON Natural Gas Company plans to spend approximately $4,400,000 for construction in 1958, and approximately $5,000,000 in 1959. The principal items of expenditure will be for new mains and services in anticipation of new business, particularly in the area between Seattle and Tacoma, and expansion into areas not now served.

Predicts Main Fuel Sources In Next Two Decades

COAL, oil and atomic fission fuels will be the main sources of thermal electric power for the next two decades, predicts C. C. Whelchel, chief mechanical engineer of the Pacific Gas and Electric Company. Atomic fusion power, which is a thermonuclear reaction using hydrogen gas, even if achieved in the laboratory, is not likely to become a practical commercial reality before 1980, he said, in a speech at a Pacific General Meeting of the American Institute of Electrical Engineers. Mr. Whelchel also added that while nuclear power is an eventual must for the power industry, it will not advance rapidly except in those areas where fossil fuel costs are high.

New Booklet on Methods of Coal Handling

THE increased importance of coal handling equipment in relation to over-all power plant design is discussed and illustrated in detail in "Methods of Handling Coal at Today's Power Plants," a new 16-page booklet just issued by Link-Belt Company.

The author, Frank W. Lovett, Link-Belt engineer of power plant equipment, describes methods of handling coal at steam generating plants, large and small, including barge and railroad car unloading facilities, storage and reclaim, conveying and elevating, crushing, weighing, sampling, distribution to bunkers and dust control. All of the equipment described is illustrated.

Copies of this booklet, No. A-2029, are available on request from Public Relations Dept., Link-Belt Company, Prudential Plaza, Chicago 1, Illinois.

Contract Awarded for Bus Runs for World's Largest Generators

A CONTRACT to build genera bus runs to connect the world's larg generators to their step-up transfor ers was awarded recently to Del Star Electric Division, H. K. For Company, Inc. When placed in o eration these generators will be t largest, having a rating of 450 meg watts.

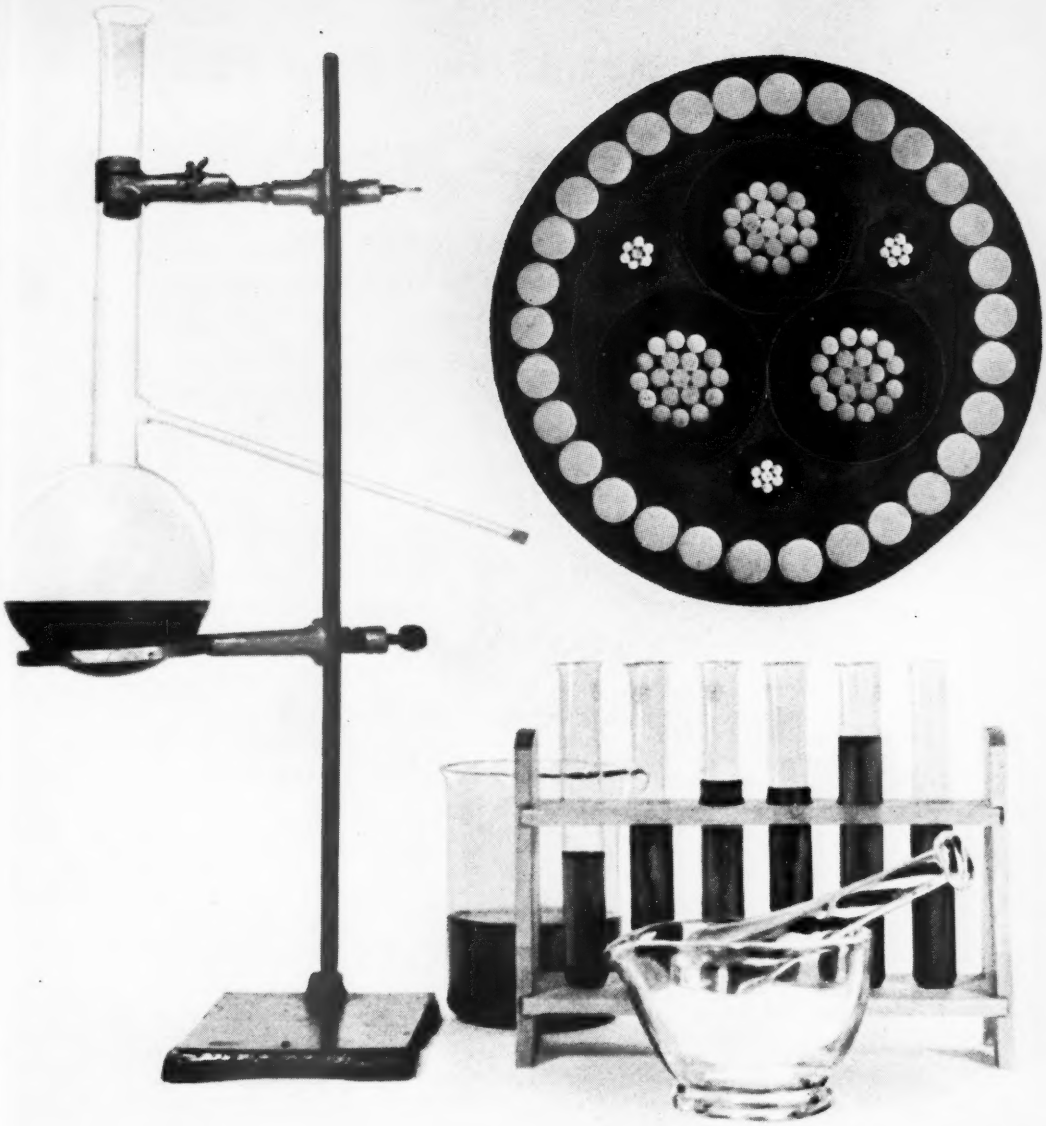
Two installations are involved: o at the Breed plant of the Indiana Michigan Electric Company, Fa banks, Indiana; and a second at t Philip Sporn plant, located at Graha Station, West Virginia, and joint owned by the Ohio Power Compa and the Appalachian Electric Powe Company.

The generator bus will be of isolate phase design with telescoping covers first developed by Delta-Star. Th bus, capable of handling 11,000 am peres, will be rated at 23,000 volts.

Plutonium Use Breakthrough

THE Atomic Energy Commissio has reported that for the first time i history man-made plutonium has no been successfully used in a nuclear re actor. This singular technologica achievement was made in the AEC national reactor testing station i Idaho. Here an initial power level o 5,000 kilowatts of heat was produce and 30,000 kilowatts are expected t be attained very soon. According to the AEC this experiment will mate rially aid its program to develo techniques for using plutonium as a fuel in civilian reactors.

The use of plutonium in atomic r actors will probably reduce operati costs, according to AEC officials. Na ural uranium, as it occurs in natur consists of less than one per cent fissionable Uranium 235 and about per cent of relatively nonfissionab Uranium 238. Since Uranium 2 can be converted into plutonium, th means in the event plutonium becom a usable fuel almost complete utiliz tion of natural uranium will be po sible. Slightly less plutonium tha uranium is needed to obtain the sam amount of heat. It probably will considerable time before plutoniu can be used on a widespread scale civilian reactors. It is highly poiso ous and is much more reactive in nuclear sense than uranium. Conse quently methods must be devised tha will safeguard its use in nuclear r actor plants.



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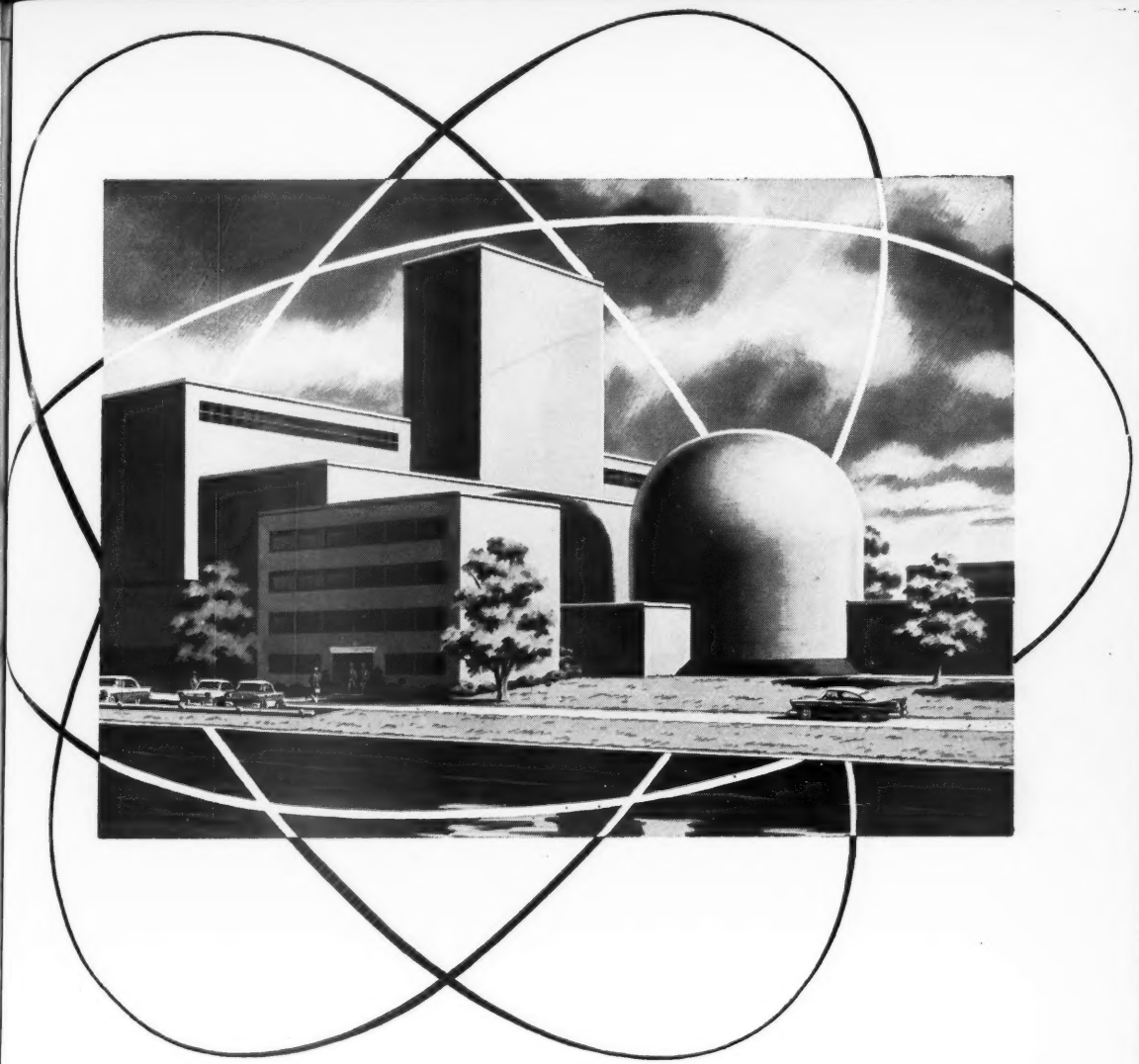

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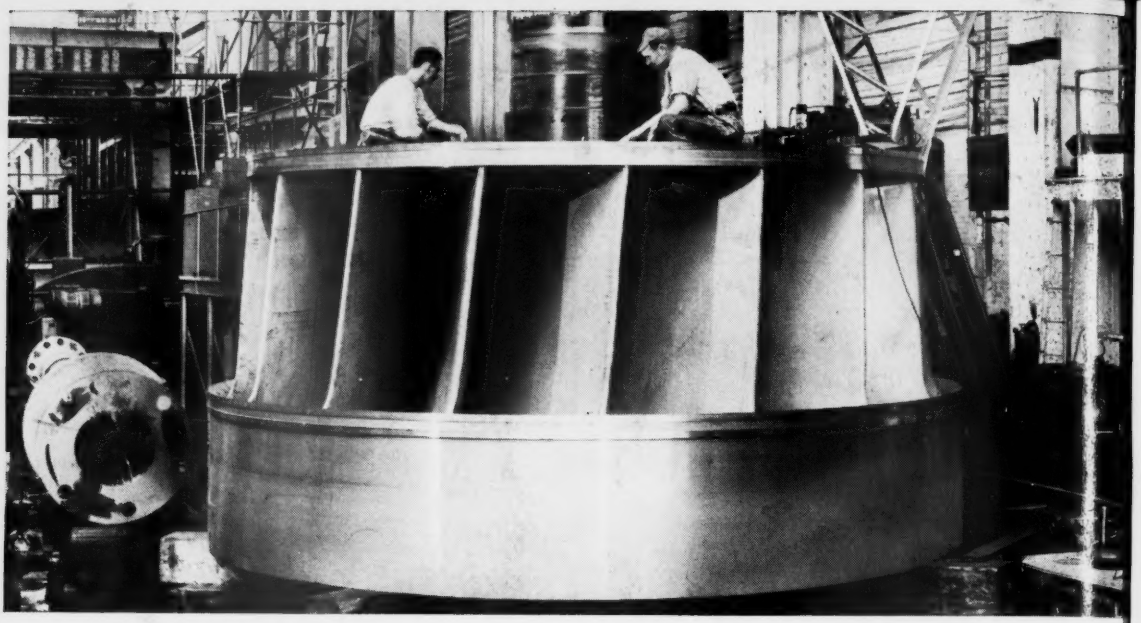

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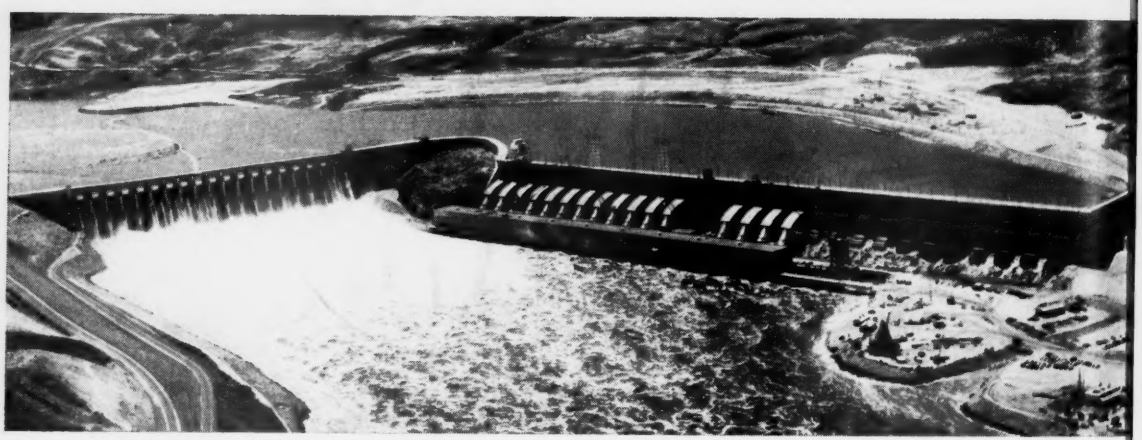

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